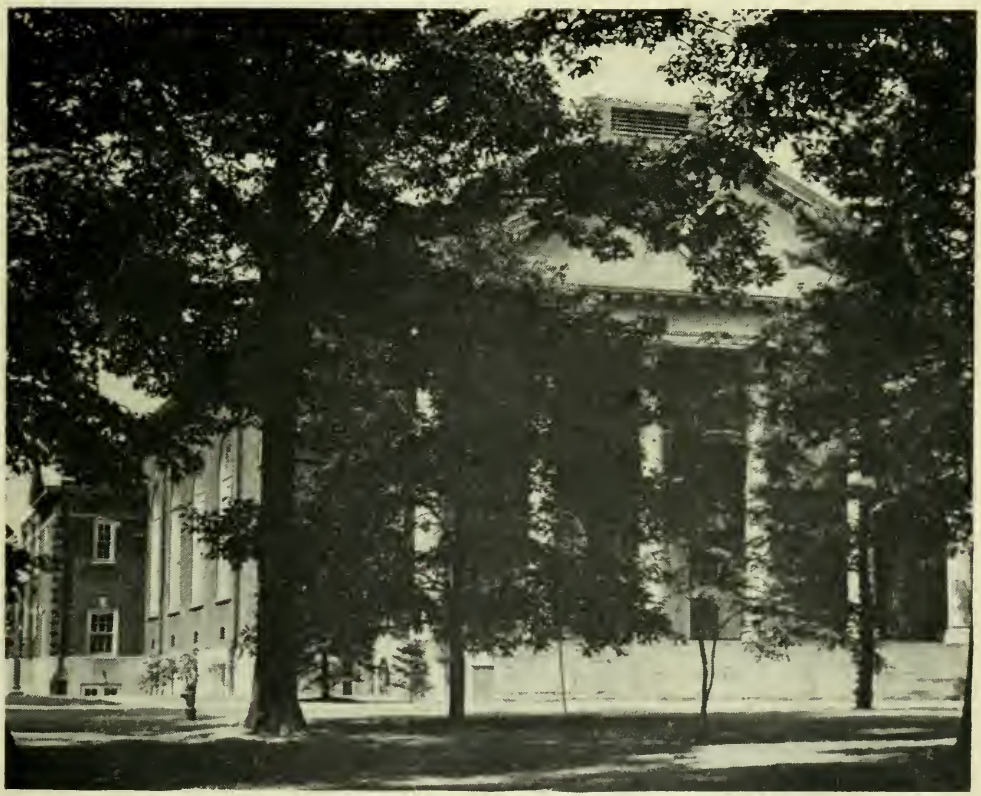
Indiana Bulletin

INDIANA
UNIVERSITY OF PENNSYLVANIA

UNDERGRADUATE ISSUE



INDIANA, PENNSYLVANIA
1968-69

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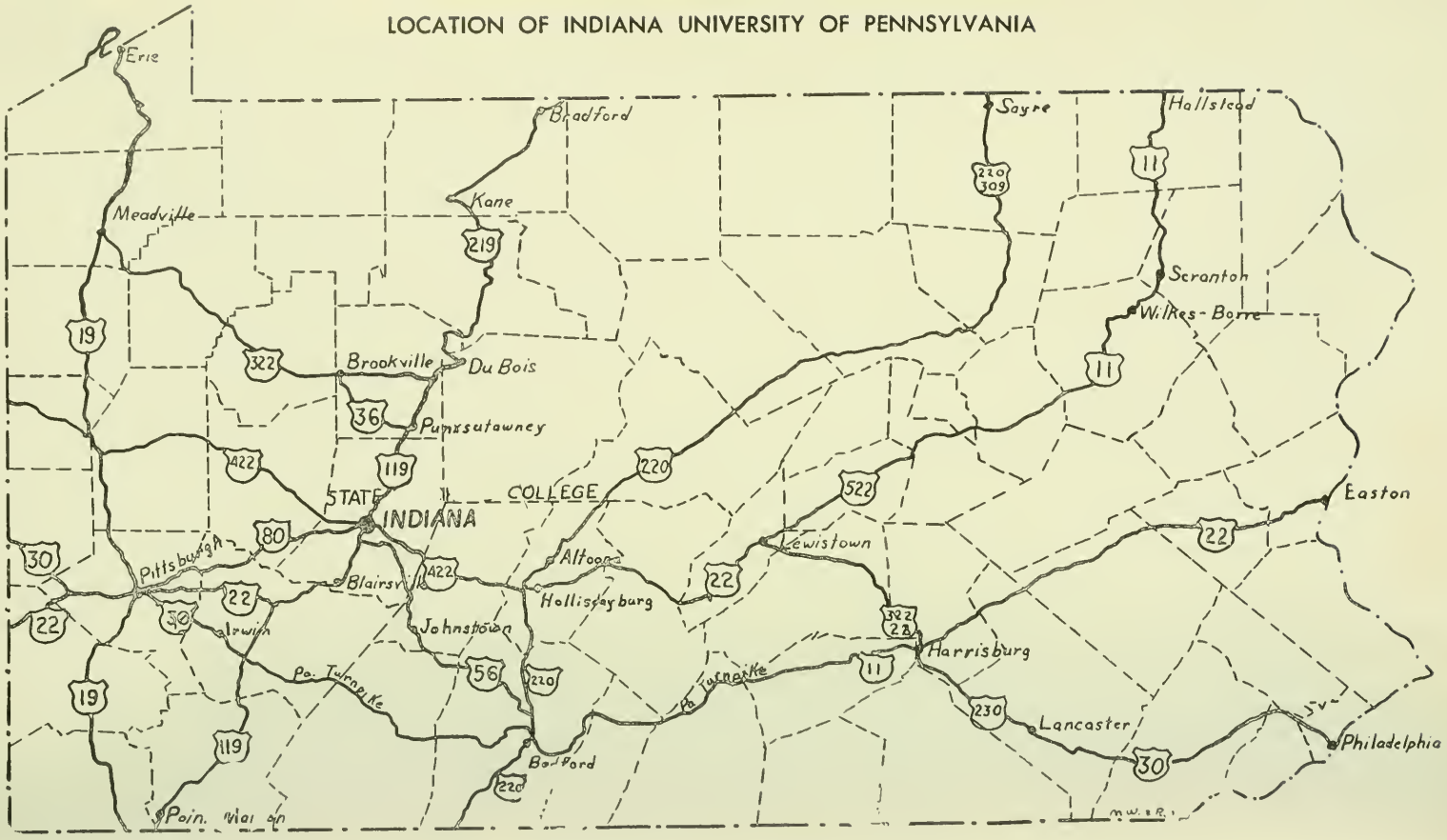
LOCATION OF INDIANA UNIVERSITY OF PENNSYLVANIA



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INDIANA UNIVERSITY OF PENNSYLVANIA

BULLETIN

VOLUME 74 FEBRUARY 1968 Number 1

INDIANA UNIVERSITY OF PENNSYLVANIA
INDIANA, PENNSYLVANIA

UNDERGRADUATE CATALOG

1968 - 1969

THIS UNIVERSITY IS ACCREDITED BY THE NATIONAL COUNCIL FOR ACCREDITATION OF TEACHER EDUCATION, THE MIDDLE STATES ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS AND THE AMERICAN ASSOCIATION OF UNIVERSITY WOMEN.

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THE INDIANA UNIVERSITY OF PENNSYLVANIA CALENDAR 1967 — 1968

THE SUMMER SESSIONS

Pre Session—1968

Registration and Beginning of Classes ..... June 10
Session Ends ..... June 28

Main Session—1968

Registration ..... July 1
Classes Begin ..... July 2
Session Ends ..... August 9

Post Session—1968

Registration and Beginning of Classes ..... Aug. 12
Summer Commencement ..... Aug. 25
Session Ends ..... Aug. 30

FIRST SEMESTER—1968

Orientation of Freshmen ..... Friday, Saturday,
(Details will be mailed) ..... Monday, Tuesday, Sept. 6-10
Faculty Workshop ..... Saturday, Sept. 7
Classes Begin with First Period ..... Wednesday, Sept. 11
Thanksgiving Recess Begins at the Close of Classes ..... Tuesday, Nov. 26
Thanksgiving Recess Ends at 8:00 A.M. ..... Tuesday, Dec. 3
Christmas Recess Begins at the Close of Classes ..... Thursday, Dec. 19
Christmas Recess Ends at 8:00 A.M. ..... Thursday, Jan. 2
Commencement ..... Sunday, Jan. 12
First Semester Ends at the Close of Final Examinations ..... Saturday, Jan. 18
Last Meeting of Saturday Campus Closes ..... Saturday, Jan. 18

SECOND SEMESTER—1969

Classes Begin at 8:00 A.M. ..... Monday, Jan. 27
Spring-Easter Recess Begins at the Close of Classes ..... Wednesday, Apr. 2
Spring-Easter Recess Ends at 8:00 A.M. ..... Thursday, Apr. 10
Second Semester Ends at the Close of Final Examinations ..... Thursday, May 22
Alumni Day ..... Saturday, May 24
Commencement ..... Sunday, May 25

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A.B., Berea College; M.A., University of North Carolina

PAUL M. WADDELL — Physics
A.B., Bethany College; M.A., Cornell University

RICHARD F. WAECHTER — Biology
B.S., Bloomsburg State College; M.S., Bucknell University; D.Ed., Pennsylvania State University

ALBERT J. WAHL — History
B.S., M.S., Lafayette College; Ed.D., Temple University

JOANN E. WALTHOUR — Keith School
B.S., Chatham College; M.M.E., University of Pittsburgh

HELEN LOUISE WARREN — English
B.S., M.Ed., Indiana University of Pennsylvania

ROBERT O. WARREN — Registrar
B.S., Indiana University of Pennsylvania; M.Litt., University of Pittsburgh

ROBERT M. WATSON — Health and Physical Education
B.S., Indiana University of Pennsylvania

JOHN G. WATTA — English
B.S., Indiana University of Pennsylvania; M.Litt., University of Pittsburgh

CHARLES E. WEBER — Geography
B.A., Montclair State College, New Jersey; M.A., Ed.D., Columbia University

KATHRYN WELDY — English
B.S., Kutztown State College; M.A., Middlebury College

GEORGE WEST — Director—Punxsutawney Center
B.S., Indiana University of Pennsylvania, Indiana, Pa.; M.Ed., Penn State

JACK R. WESTWOOD — Mathematics
B.S., Indiana University of Pennsylvania; M.S., Burkwell University

GEORGE M. WHITSON III — Mathematics
B.S., University of Mississippi; M.A., University of Massachusetts

GEORGE T. WILEY — Director, Graduate Research
A.B., Oberlin College; M.A., Ph.D., Western Reserve University

JAMES HERBERT WILDEBOOR — Music
A.B , Ottawa University; M.M.E., University of Kansas

WILLIAM C. WILLETT — Chairman, Department of Music
B.M., M.A., University of Wisconsin; A.M.D., Eastman School of Music

ROGER N. WILLIAMS, JR. — Foreign Languages
B.S., Grove City College; M.A., Pennsylvania State University

HALLEY O. WILLISON, JR. — Mathematics
B.S.Ed., Clarion State Teachers College; M.Litt., University of Pittsburgh

JAMES C. WILSON — Counseling and Guidance
B.S., Clarion State College; M.Ed., Duquesne University; Ed.D., University of Pittsburgh

T. KENNETH WILSON — English
B.A., University of Buffalo

ANNA T. WINK — Computer Center
B.A., Gettysburg College; M.S., Pennsylvania State University

DAVID CLINTON WINSLOW — Geography
B.A., University of Oklahoma; M.A., University of Nebraska; Ph.D., Clark University

BRONISLAW WOJTUN — Economics
B.S., University of Cologne, Germany; M.B.A., Temple University

EDWARD G. WOLF — Library
B.Ed., Duquesne University; M. Letters, University of Pittsburgh; M.S.L.S., Drexel Institute of Technology

RICHARD E. WOLFE — Mathematics
A.B., Gettysburg College; M.S., Ph.D., University of Illinois

SUSAN WOOD — Geography
B.S., M.A., Kent State University

MELVIN R. WOODARD — Chairman, Department of Mathematics
B.S., Mansfield State College; M.A., University of Illinois; Ed.D., Oklahoma State University

ROBERT L. WOODARD — Physics, Director of Institutional Research
B.S., Syracuse University; M.S., State University of New York, Geneseo, New York, Ph.D., Cornell University

DON W. WOODWORTH — English
B.A., Dartmouth; M.A., Indiana University

DALE W. WOOMER — Business
B.S., M.Ed., Pennsylvania State University

PAUL R. WUNZ, JR. — Chairman, Department of Chemistry
B.S., M.S., Pennsylvania State University; Ph.D., University of Delaware

JOHN A. YACKUBOSKEY — History
B.A., North Georgia College; M.A., Emory University

HAROLD J. YOUCIS — Chairman, Department of Foundations of Education
B.M.E., Drake University; M.S., Ithaca College; Ed.D., Indiana University

PATRICIA L. YOUNG — Assistant to Dean of Women
B.S., Indiana University of Pennsylvania

MAURICE M. ZACUR — Geography
B.S., Indiana University of Pennsylvania; M.Ed., University of Pittsburgh

GENO ZAMBOTTI — Chemistry
B.S., M.Ed., Indiana University of Pennsylvania

CYRIL J. ZENISEK — Biology
B.S., M.S., Ph.D., Ohio State University

GEORGE D. ZEPP — Elementary Education
B.S., Millersville State College; M.Ed., D.Ed., University of Maryland

PATSY A. ZITELLI — Physics
A.B., Ed.M., University of Pittsburgh; Ed.D., Pennsylvania State University

EMERITI

JOHN E. DAVIS — Director of Teaching, Placement, Keith School
A.B., Pennsylvania State University; A.M., Ph.D., University of Pittsburgh

MARY L. ESCH — Registrar

JOY E. MAHACHEK — Chairman, Mathematics
Coordinator of Secondary Education Departments
A.B., State College of Iowa; A.M., Columbia University; Ph.D., University of Pittsburgh

GEORGE P. MILLER — Chairman, Health and Physical Education
B.S., A.M., Columbia University

FLORENCE WALLACE — History
A.B., Wellesley College; A.M., Columbia University

NORAH E. ZINK — Geography
B.S., University of Utah; A.M., Columbia University; Ph.D., University of Chicago

SUPERVISING TEACHERS IN COOPERATING SCHOOLS

August 18, 1967

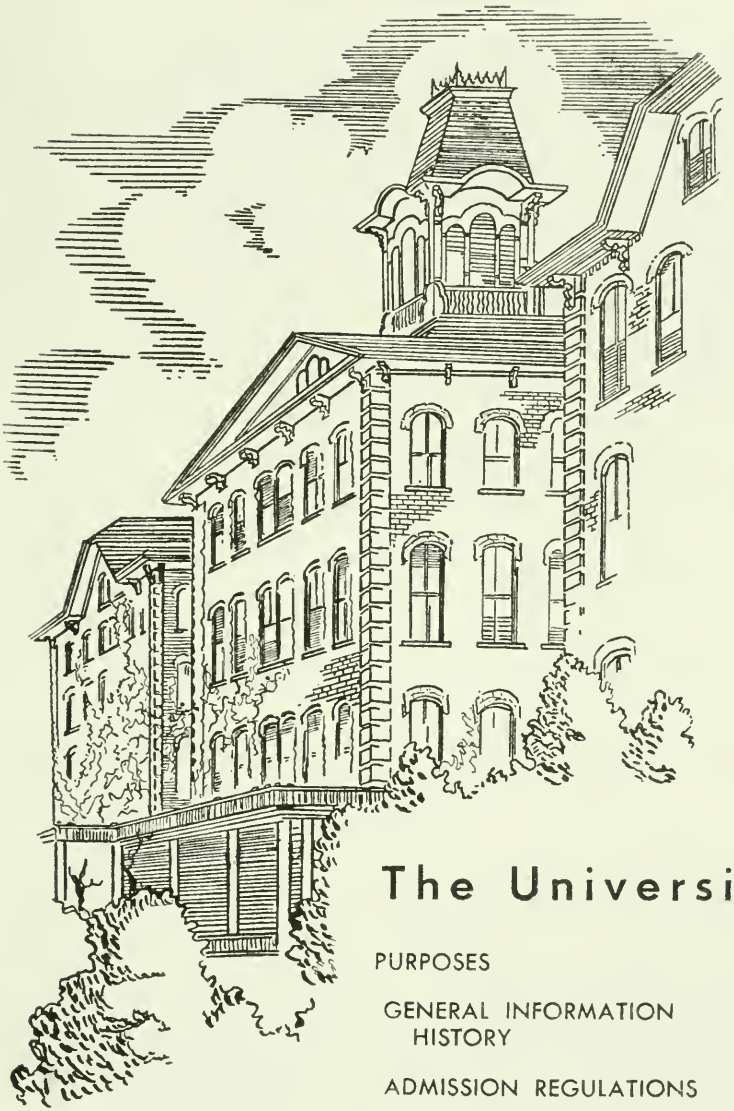
Abraham, Thomas — Jeannette
Acciai, Deno — Lower Burrell
A'Hearn, Neloese — Butler
Aiello, Ronald — Westmoreland County
Aikens, Bonnie — Lower Burrell
Aikey, Charles — Johnstown
Aikey, Robert — Johnstown
Amann, Alfred — Jeannette
Anthony, George — Westmont
Apel, Dale — New Kensington
Appel, George — Ingomar
Applegate, Marion — New Kensington
Arezina, Marko — Lower Burrell
Armstrong, John — New Kensington
Ashworth, Edna — Benjamin Franklin
Askey, William — Westmont
Austin, Edward — Hempfield
Bach, Martha — Johnstown
Bailey, Robert — Ferndale
Baird, Lucile — Butler
Baker, Irma — Johnstown
Balest, Florence — Monroeville
Barkhymer, Jessie — Westmont
Barkley, Ruth — Lower Burrell
Bash, Bernadine — Hempfield
Bash, Jean — Monroeville
Baxter, Evelyn — Baldwin-Whitehall
Beck, Janet — Westmoreland County
Beitel, Bruce — Hempfield
Bell, Larry — Lower Burrell
Bell, Madeline — Purchase Line
Bellavia, Rita — Johnstown
Benner, Helen — Ford City
Benton, Elda — Altoona
Bernat, Edwinna — Benjamin Franklin
Bianca, Arlene — Homer City
Binkey, Marjorie — Homer Center
Bistline, Darwin — Altoona
Bloom, Keith — Marion Center
Blose, Carolyn — Northern Cambria
Blough, Verna — Johnstown
Bobick, Marianne — Indiana
Bode, Marian — Baldwin-Whitehall
Bohn, Russell — Altoona
Bolger, Dolores — Altoona
Bolha, Emil — Westmont
Boothman, Isabelle — Hempfield
Bowers, Edith — Punxsutawney
Bowers, Lawrence — Murrysville
Bowes, Margaret — Johnstown
Boyer, Eleanor — Butler
Breon, Paul — Greensburg-Salem
Brewer, Marguerite — Murrysville
Brobst, Roger — Penn Hills
Brooks, Edgar — Altoona
Brougher, Glenn — Ferndale
Brown, Gladys — Benjamin Franklin
Brunelli, Julia — Greensburg-Salem
Bruno, Carolyn — New Kensington
Bryja, Walter — Elders Ridge
Bucar, Paul — Norwin
Buchanan, Kathryn — Indiana
Buchanan, William G. — Purchase Line
Buchovecky, Catherine — Johnstown
Burchfield, Robert — Altoona
Bush, Linda — Murrysville
Calabrese, Clyde — Derry
Calderwood, Lelia — Johnstown
Calhoun, Elsie — New Bethlehem
Callahan, Antionette — Greensburg
Calvo, Delfino — Derry
Cammisa, Michael — Butler
Campbell, Mary Jane — Monroeville
Carnahan, Harry — Indiana
Carosella, S. Anthony — Johnstown
Casas, Charlotte — Shanksville
Casillo, Catherine — New Kensington
Centorcelli, Eugene — Lower Burrell
Cherepko, Betty Lou — Murrysville
Chisnell, Elnora —Laurel Valley
Christy, Beulah — Lower Burrell
Cieslik, Robert — Murrysville
Claypool, Charlotte — Monroeville
Cochran, Wayne — Indiana
Coffman, Harold — Kiski Area
Conn, Patricia — Kittanning
Connell, Linda — Butler
Conrad, Regina — Altoona
Cornell, Harry — Norwin
Corrigan, Patrick — Penns Manor
Coup, Jack — Norwin
Covode, Nora — Richland Twp.
Craig, Ruth — Allegheny County
Cramer, Virginia — Penn Hills
Creps, Jeanne — Indiana
Crisafulli, Margaret — Conemaugh Twp.
Crist, Zella — Altoona
Critchfield, Mrs. Donald — Somerset
Crnarich, Francis — Altoona
Cross, William — Butler
Cruikshank, Marjorie — Butler
Cummings, Patrick — Hollidaysburg
Cunningham, Alice — Ligonier
Daugherty, Wallace — Kiski Area
D'Amato, Hugh — Jeannette
Dautlick, Jeanne — Monroeville
Davis, James — Ford City
Dean, John — Johnstown
DeGaetano, Arveta — Indiana
Delia, Jean — New Kensington
DeLuca, Margaret — Lower Burrell
DiAndreth, Robert — Penn Hills
Dice, John — Somerset
DiTullio, Josephine — Monroeville

Dixon, Bernice — United Joint
Dombart, Donald — Butler
Donaldson, Ralph — Greensburg-Salem
Doney, Clifford — Punxsutawney
Donnellan, Walter — Monroeville
Douglass, Leona — Altoona
Dunlap, William — Hempfield
Eardley, Arthur — Hollidaysburg
Ebbecka, John — Butler
Edder, Margaret — Indiana
Edwards, Glyn — Johnstown
Elkin, Kenneth — Greensburg
Elliott, Ruby — Johnstown
Emberg, Donald — New Kensington
Esch, Georgianna — Altoona
Esch, Glynn — Altoona
Esper, Thomas — Monroeville
Evans, Alice — Monroeville
Everett, Richard — Penn Hills
Fails, George — Hempfield
Farabaugh, Leonard — Murrysville
Feeley, Paul — Richland
Ferrara, Camilla — Armstrong County
Festa, Louis — Derry
Fetterman, Gerald — Punxsutawney
Fetterman, William — Penns Manor
Fichter, Judith — North Hills
Fink, Ronald — Altoona
Fiorina, John — Derry
Fisk, Jean — Murrysville
Fitzmaurice, Vincent — New Kensington
Fleming, Dorothy — Indiana
Fox, Cedil — Hollidaysburg
Frech, Mary — West Kittanning Twp.
Furrer, Ethelyn — Altoona
Gaggini, Frederick — Lower Burrell
Gahagan, Zula — Blairsville
Galbreath, Edith — Johnstown
Galbreath, Elsie — Murrysville
Gallo, John — Marion Center
Garrity, James — Greensburg-Salem
Gates, Jean — Altoona
Gecowets, Mary — Monroeville
George, John — Lower Burrell
George, Glenn — United Joint
Gerhart, Wade — Greensburg-Salem
German, Mary Jo — Westmoreland County
Gibboney, Clara — Altoona
Giovannitti, Alma — Monroeville
Glass, Mary — Monroeville
Good, Sherman — Derry
Good, William — Westmont
Gorgon, Stella — Altoona
Gosser, Margaret — Kiski Area
Gould, Betty — Blairsville
Graham, Eleanor — Butler
Green, Elizabeth — Indiana County
Green, S. Elizabeth — Richland Twp.
Griffith, Robert — Somerset
Gritzer, Doris — Johnstown
Grove, Harold — Indiana
Gutt, Frieda — Norwin
Haber, Felicia — Monroeville
Hahn, William — North Allegheny
Hamilton, William — Altoona
Hanak, Andrew — Johnstown
Hancuff, William — Hollidaysburg
Hardin, Marian — Penn Trafford
Harding, Richard — Baldwin-Whitehall
Hardoby, Michael — Butler
Harris, John — Somerset
Harriger, Charles — Lower Burrell
Harrold, Carol — New Kensington
Harris, Thomas — Indiana
Harmon, Daniel — Indiana
Heaton, Mary Ellen — Indiana
Heckler, Vicva — Windber
Heininger, Lois — Altoona
Hemphill, Alma — Butler
Henry, Mary Ann — Westmoreland County
Herceg, John — New Kensington
Hicks, Loretta — East Brady
Hill, Marybelle — Indiana
Hoffman, Harriet — Murrysville
Hoffman, Ruth — Altoona
Hoffman, Wilbert — Altoona
Hogemyer, Amy — Altoona
Holden, Robert — Monroeville
Holliday, Joseph — Highlands
Holstein, William — Indiana
Horner, Carole — Butler
Horner, James — Derry
Hornick, Emilie — Johnstown
Houk, Sara — Indiana
Hoyer, Helen — Penn Hills
Huber, Joseph — Richland Twp.
Hunt, Margaret — Johnstown
Hunter, Betty — Indiana
Hunter, Sheldon — Westmont
Iagnemma, Eugene — Kiski Area
Idzkowski, Velva — Westmont
Ifft, Edith — Butler
Ifft, John — Butler
Ingersoll, Ralph — Monroeville
Jacoby, Morna — Benjamin Franklin
Jamison, Ardelle — Homer Center
Jamison, Clair — Homer Center
Jerko, Beatrice — Purchase Line
Johns, Beverly — Richland Twp.
Johnston, Mary — Wilkinsburg
Jones, Margaret — United Joint
Jones, Susannah — Derry
Kamerer, Ann — Norwin
Kampo, Rosemary — New Kensington
Kane, Janet — Norwin
Karalfa, Rose — Johnstown
Katter, Mary — Johnstown
Kaufman, Grace — Conemaugh Twp.
Kaufman, John — Westmont
Kaufman, Marjorie — Westmont
Keefer, Neal — Indiana
Kelley, Ethel — Turtle Creek
Kelley, John — Blairsville
Kelly, Kathleen — Latrobe

Kemmler, June — Baldwin-Whitehall
Kensek, Michael — Highlands
Kepple, Richard — Murrysville
Kerr, Jane — Butler
Kerr, Mary Jane — Murrysville
Keslar, Grace — Portage
King, Marie — Ligonier
Kinkead, Ralph — Greensburg-Salem
Kist, Nell Marie — Derry
Klipa, Steve — Monroeville
Knapp, Ray — Westmont
Kneckel, Martha — Johnstown
Koch, Edward — Indiana
Kohler, Dolores — Johnstown
Korezynski, Roman — Highlands
Kosmack, Joan — New Kensington
Krehlick, Margaret — Kiski Area
Krivacek, Paul — Westmoreland County
Krouse, Hazel — Altoona
Kropinak, Stephen — Kittanning
Kunkle, Jean — Indiana
Kurtz, Katherine — Johnstown
Kurtz, Ralph — Ligonier
Lace, Patricia — Lower Burrell
Laird, David — Indiana
Laird, Rachel — Ligonier
Latshaw, Ann — Indiana
Laughlin, Regis — Monroeville
Lawrence, Bernice — Johnstown
Lawson, Samuel — Latrobe
Lehman, Wayne — Richland Twp.
Lenhart, Carolyn — Monroeville
Lewis, Betty — Indiana
Lindemer, Carmen — Altoona
Livingston, Hazel — Johnstown
Lloyd, Frank — North Allegheny
Lockard, Raymond — Penns Manor
Long, Alice — Blairsville
Long, Kathryn — Johnstown
Long, Thalia — Indiana
Loveday, Marian — Murrysville
Lore, Betty — Blairsville
Loughren, James — North Allegheny
Love, Robert — Indiana
Luchsinger, Jane — Blairsville
Luciano, Nicholas — Altoona
Lynch, Robert — Johnstown
Lynn, Joyce — Monroeville
Mack, Frances — Norwin
Mahoney, Nora — Altoona
Makin, Dorothy — Cambria County
Malacarne, Richard — Indiana
Malletz, Alex — Derry
Mancuso, Judith — Homer Center
Mandigo, Howard — Indiana
Manners, Diann — Monroeville
Mannion, Robert — Westmont
Marinucci, Frank — New Kensington
Markle, Ruby — Derry
Marshall, Clark — North Hills
Marshall, George — Butler
Martin, Robert — Indiana
Marts, Bertha — Saltsburg
Massabni, George — Altoona
Mastro, Joseph — Derry
Mattioli, Louise — Lower Burrell
McCoy, Lydia — Indiana
McCullough, LaRue — Indiana
McDonald, Gertrude — Blair County
McElhinney, Ferne — Kittanning
McGary, Janete — Indiana
McGee, Richard — Indiana
McGregor, Dorothy — Altoona
McKinney, Ronald — Butler
McLaughlin, Charles — Monroeville
McManus, Zetta — Johnstown
McMasters, Patricia — Monroeville
McQuilkin, Theodore — Indiana
McVitty, Claire — Benjamin Franklin
Meek, Richard — Hollidaysburg
Meigham, Edward — Kiski Area
Melleky, John — Johnstown
Meneely, Clyde — Punxsutawney
Menk, George — New Kensington
Merich, George — Murrysville
Middlekauff, Ray — Monroeville
Miller, Carl — Johnstown
Miller, Evelyn — Blair County
Miller, Richard — Marion Center
Miller, Ruth — Blairsville
Milliron, Thomas — Hempfield
Mills, Judith — Monroeville
Minder, John — Hempfield
Mitchell, Melvin — Punxsutawney
Mniszak, Joseph — Leechburg
Mohler, Slava — Churchill
Montgomery, Marion — Marion Center
Monti, John — Altoona
Morgan, Mary — Richland Twp.
Morosky, Patricia — Monroeville
Mostoller, Earl — Westmont
Munro, Mary Ann — Monroeville
Myers, Mary Jane — Cambria County
Myers, Nancy — Johnstown
Myford, James — Jeannette
Napolitan, Richard — Johnstown
Nealand, William — Northern Cambria
Neely, Donald — Hollidaysburg
Neff, Gary — Latrobe
Neff, Patricia — Monroeville
Nelson, Anna — Altoona
Nemec, Margaret — Monroeville
Netzlof, Catherine — Latrobe
Neutrelle, James — Butler
Nicely, Robert — Monroeville
Nichol, Evelyn — Indiana County
Nichol, Olive — Marion Center
Nicholas, Anthony — Kiski Area
Nicholls, Sterling — Indiana
Oakes, Robert — Penns Manor
O'Bruba, Melva — Murrysville
O'Bruba, William — Murrysville
O'Leary, Robert — Monroeville
Oliver, Frank — New Kensington

Owens, Lucille — Jeannette
Page, Roberta — Monroeville
Painter, Martha — Ford City
Palmer, Bain — Marion Center
Palmer, Donna — Homer Center
Panebianco, Ellen — Murrysville
Paone, Anthony — Westmont
Papinchak, Andrew — Westmont
Park, Jean — Greensburg-Salem
Pepe, Arthur — Somerset
Pesarchick, John — Norwin
Philliber, Robert — Punxsutawney
Pino, Bruno — Penns Manor
Plischke, Alton — Murrysville
Poliziani, Leonard — Saltsburg
Polk, Helen — Murrysville
Pollock, George — Indiana
Popp, Frank — Blairsville
Porter, Helen — Benjamin Franklin
Potter, Richard — Altoona
Preisser, Dennis — New Kensington
Preuss, Mary — North Hills
Previte, Peter — Penns Manor
Puckey, Marian — Altoona
Puff, Margaret — Butler
Puhala, Joan — Johnstown
Querry, Dorothy — Altoona
Quinn, Jean — Elderton
Radomaky, Andrew — Marion Center
Rager, Leora — Ferndale
Ramsey, Arthur — Altoona
Randolph, Virginia — Indiana
Ray, Margaret — Johnstown
Redenberger, Charles — Altoona
Reid, John — Altoona
Read, Kathy — Indiana
Renison, Mary — Mars
Renkin, Sylvia — Wilkinsburg
Rhodes, James — Hollidaysburg
Richards, Thelma — Johnstown
Ringer, Alice — Monroeville
Risher, Elsie — Richland Twp.
Roadarmel, Patricia — Altoona
Rohrbacher, Gail — Monroeville
Rose, Martha — Penn Hills
Ross, Miriam — Marion Center
Ruck, Joan — Hollidaysburg
Rugh, Sarah — Greensburg-Salem
Rupert, Herman — Elderton
Russell, Helen — Benjamin Franklin
Rutter, Gilbert — Hempfield
Salay, John — Conemaugh Twp.
Salinger, Ann — Johnstown
Sann, Lillian — Johnstown
Santner, Ann — Norwin
School, Beverly — Allegheny County
Schrock, Dorothy — Purchase Line
Scott, William — Purchase Line
Sebastian, Frank — Purchase Line
Servinsky, Stanley — Indiana
Shaffer, Blanche — Conemaugh Twp.
Shannon, Betty — Forbes
Sharrow, Frederick — Freeport
Shaw, Francis — Punxsutawney
Shearer, Walter — New Kensington
Shulick, Suzanne — Blairsville
Shuma, Lois — North Hills
Shuster, Stephen — Greensburg-Salem
Sibley, James — Greensburg-Salem
Simmons, Robert — Hempfield
Singer, Chester — Somerset
Slack, Robert — Monroeville
Slezak, Elmer — Greensburg-Salem
Slosky, Kenneth — New Kensington
Smeltzer, Glenn — Derry
Smith, Eileen — Lower Burrell
Smith, Gladys — Elderton
Smith, Helene — Monroeville
Smith, Mona — Blairsville
Smith, Pauline — New Bethlehem
Smith, Virginia — Monroeville
Snyder, Elvin — Punxsutawney
Socash, Ray — New Kensington
Southern, Mildred — Somerset
Sowers, Harold — Ford City
Speacht, Eugene — Altoona
Spenger, Mary — Johnstown
Sproull, Harry — New Kensington
St. Clair, Frederick — United Joint
Stapleton, Walter — Indiana
Staruch, Stephen — Butler
Steele, Charles — Murrysville
Stephenson, Vivian — Highlands
Stevenson, Alan — Elderton
Stevenson, Richard — Westmont
Stewart, Joyce — Monroeville
Stewart, Nancy — Lower Burrell
Stewart, Robert — Marion Center
Stickley, David — New Kensington
Stinebisor, Earl — Jeannette
Stockdale, Mildred — Punxsutawney
Stormer, William — Central Cambria
Stokes, Minerva — Lower Burrell
Stringer, Catherine — Johnstown
Strycula, Walter — North Allegheny
Stuchell, William — Punxsutawney
Sullinger, James — Indiana
Sutton, Donnella — Blairsville
Swacus, John — Murrysville
Swartz, Marguerite — Murrysville
Swartz, Richard — Altoona
Swartzwelder, Phyllis — Johnstown
Swauger, Evelyn — Benjamin Franklin
Sybinsky, Andrew — Hempfield
Szul, Joseph — Lower Burrell
Terwilliger, Helen — New Kensington
Thomas, Mary Bess — Greensburg-Salem
Thompson, Elizabeth — New Kensington
Tie, Dorothy — Johnstown
Timmons, Arlene — North Allegheny
Traugh, Robert — Indiana
Trefts, Janet — Greensburg-Salem
Urban, Jack — Greensburg-Salem
Utterback, Billie — Murrysville

Van Dyke, Frederick — Indiana
Van Horn, Louella — Elderton
Varner, Marian — Johnstown
Vassilaros, Constantine — Monroeville
Veselicky, Rudy — Lower Burrell
Vesely, Donna — Westmoreland County
Vinton, Beth — Indiana
Vorlage, Ethel — New Kensington
Waddell, Mildred — Benjamin Franklin
Waldfogle, Robert — North Hills
Walter, Clair — New Kensington
Wanderer, Marjorie — Lower Burrell
Waryck, William — Hollidaysburg
Warzel, Roland — United Joint
Waskoskie, William — Murrysville
Watkins, Jaeques — Lower Burrell
Watkins, Thomas — Derry
Watson, Lee — Altoona
Waugaman, Sara — Hempfield
Weaver, Marion — Ford City
Weber, Madge — Ford City
Weber, William — Derry
Wellen, Maxine — Marion Center
Werner, Robert — Derry
West, Martha — Homer Center
Westrick, Louise — Johnstown
Wetzel, Helen — Kittanning Twp.
Wetzel, Jean — Elders Ridge
Wilden, Helen — Indiana
Wille, Gladys — Penns Manor
Wilson, Arthur — Greensburg-Salem
Wilson, Thomas — Punxsutawney
Wilt, Charles — North Braddock
Wingard, Marlin — Windber
Winslow, Mary — Benjamin Franklin
Wolfe, Donald — Kiski Area
Wood, Dorothy — Punxsutawney
Wood, Harry — Indiana
Woods, Janet — Monroeville
Woomer, Ida — Altoona
Wyncoop, Genevieve — Norwin
Zahradnik, Joyce — Elderton
Zedick, John — Indiana
Zeliff, Carol — Hempfield



The University

PURPOSES

GENERAL INFORMATION
HISTORY

ADMISSION REGULATIONS

FEES, DEPOSITS,
REPAYMENTS

SCHOLARSHIPS AND LOANS

REGULATIONS OF
THE COLLEGE

SPECIAL SERVICES

STUDENT ORGANIZATIONS

PURPOSES OF THE UNIVERSITY

As a multi-purpose institution Indiana University encompasses the Schools of Education, Arts and Sciences, Business, Continuing and Non-Resident Education, Health Services, Home Economics, Fine Arts and the Graduate School. Indiana University of Pennsylvania endeavors to fulfill the primary purpose of education as stated by Alfred North Whitehead, namely, "To stimulate and guide student self-development" so that the student learns both how to make a living and how to live. The University extends this educational opportunity to those students whose conscientious application and serious motivation indicate promise of substantial achievement.

As Emerson noted in his Journal over a hundred years ago, "The things taught in schools and colleges are not an education but the means of education." At Indiana University of Pennsylvania these "means of education" comprise a variety of factors. First there is a pervasive, intellectual climate designed to stimulate the student's imagination, stretch his mind, and extend his tolerance as he rubs minds with new ideas, teachers, and associates in the classroom, laboratory and the library. These intellectual contacts also tend to develop critical independent judgments, mental discipline and the ability to make mature decisions.

The various curricula are carefully structured to provide the student with a broad perspective that will enable him to appreciate his cultural heritage and at the same time afford him the opportunity to pursue in considerable depth his particular sphere of interest. Such a comprehensive program inevitably includes some knowledge that is worth knowing not for any material gain but simply because it enriches one's existence. Also, the wide spectrum of courses which a student takes frequently contains at least one or two in which a student will have little interest or skill, but these too have their values for as T. S. Eliot has observed: "No one can really become educated without having pursued some study in which he took no interest." The vast bulk of the program, of course, will both absorb and challenge the motivated student.

Undergirding the entire academic program is the philosophy that in the final analysis there is no education except self-education. Consequently, the faculty strive to whet intellectual appetites and to inculcate the problem-solving approach so that the student will acquire both the desire and ability to teach himself. In this way Commencement truly will become the beginning of "life-long learning."

In addition to enabling students to acquire professional skills and enrich their cultural existence, the University endeavors to instill in each student a social consciousness which

will make him a contributive and substantive member of society, for as de Tocqueville emphasized we cannot have a strong democratic society without a good quality of citizenship. This attribute of good citizenship accrues partly from academic study and partly as a result of the social mores and associations which one encounters and experiences in college.

Intertwined with the goal of increasing the student's social awareness and consideration for his fellow men, is the development of moral fibre. General Omar N. Bradley is duly disturbed by the fact that "ours is a world of nuclear giants and ethical infants." Indiana University of Pennsylvania firmly believes that no education, regardless of its academic excellence, can fulfill its true potential unless students are inspired and guided by spiritual values and moral considerations.

Admittedly the University cannot succeed in realizing all of these goals; however, even this is part of the dynamic educational process of **becoming** rather than **attaining.**

This university welcomes qualified students, faculty, and staff from all racial, religious, ethnic, and socio-economic backgrounds.

THE UNIVERSITY, PRESENT AND PAST

The Indiana University of Pennsylvania is a state-owned and state-controlled institution for higher education. It is a multi-purpose institution composed of eight schools.

The university is an approved and fully accredited member of the Middle States Association of Colleges and Secondary Schools, the American Association of University Women, and the National Council for the Accreditation of Teacher Education, the three acknowledged accrediting agencies for institutions in this region. The fact that this university is a member of these three organizations is of immediate personal importance to the individual student in two ways; first, the student may transfer college credits from one approved institution to another without loss in case he finds it necessary to change colleges; and second, the student who is a graduate of an approved institution is eligible for a better position.

Throughout the entire history of the University at Indiana, great emphasis has been placed on maintaining high academic standards and providing adequate facilities conducive to individual and group growth. The present record and reputation enjoyed by the University have evolved during a ninety year history. Growing out of the need for a teacher training institution in Western Pennsylvania, the General Assembly passed an act in the legislative session of 1871 granting aid for the establishment of a normal school in the ninth district at Indiana.

The first building was completed and opened for students on May 17, 1875. This building, named John Sutton Hall in honor of the first president of the Board of Trustees, is still in use and in very good condition.

The steady growth of the institution has caused a continuous expansion in its building program and many new buildings have followed that edifice of tradition—John Sutton Hall. The size and natural beauty of the university campus offer ample opportunity for recreation in an environment conducive to personal enjoyment. The main campus of the university originally 23 acres with one building is now composed of 87 acres on which are located twenty-five principal halls, 20 other buildings, and seven athletic fields. The University Lodge, located a few miles from Indiana, is surrounded by 100 acres of wooded hillside. This not only offers opportunity for nature study by science and conservation classes but also provides an ideal setting for numerous social activities of the university.

In April, 1920, control and ownership of the school passed to the Commonwealth of Pennsylvania. In May, 1927, by authority of the General Assembly, the State Normal School became a college with the right to grant degrees. The name was then changed to the State Teachers College at Indiana, Pennsylvania. In 1960, the name was changed to Indiana State College setting the stage for a liberal arts program which graduated its first students in January 1964.

In December, 1965 Indiana was redesignated the Indiana University of Pennsylvania and given the right to expand its curricular offerings and to grant degrees at the doctoral level, as well as in a number of additional areas at the master's level.

Since the founding of the university in 1875, Indiana has graduated over 23,000 students, and since the university became a degree conferring institution in 1927, over 14,000 degrees have been granted. Many of the graduates are organized into a strong Alumni Association with units active in many sections of Pennsylvania as well as in New York, Michigan, and the District of Columbia. The Alumni Association cooperates with the university in many projects designed to better the institution and for the welfare of the students.

Located in Indiana Borough, Indiana County seat, in the foothills of the Alleghenies at an elevation of about 1,300 feet, the Indiana University of Pennsylvania is ideally situated for cleanliness and beauty. The University is easily accessible by automobile over excellent state highway routes coming from all sections of the state. These leading routes are route 422 east and west, route 286 northeast and southwest, and route 119 north and south. Bus passenger services operate on frequent schedules to and from Indiana and all nearby cities and towns including Pittsburgh, Altoona, Johnstown, Butler, Punxsu-

tawney, Kittanning, DuBois, Ridgway, New Castle and others. Indiana is also served by bus connections with the main line of the Pennsylvania Railroad at Johnstown and Pittsburgh.

BUILDINGS AND GROUNDS

The campus at the university at Indiana is frequently described as one of the most beautiful university campuses in the country. The campus proper located in the central section of the Indiana community contains about 110 acres of land, 23 of which were in the original area. New athletic playing areas were recently developed in the area known as the Glassworks immediately southwest of the main campus. In the center of the campus is the historic oak grove about which are grouped the main buildings, forming three sides of a quadrangle. The rest of the campus is made beautiful by a careful distribution of shrubs, flowers and vines artistically arranged.

John Sutton Hall, constructed in 1875, was the original building and is the largest on the university campus at the present time. In addition to housing more than 700 women students, it contains parlors, recreation rooms, the President's apartment, an excellent laundry and ironing room, a shampoo room, and several large storage rooms and offices on the ground floor.

Thomas Sutton Hall, erected in 1903, an addition to John Sutton Hall, contains the kitchen, dining rooms and dietitian's office on the first floor, and housing for 65 women students on the second and third floors. On the ground floor is located the duplicating services for the University.

Clark Hall, named in honor of Justice Silar M. Clark, a former member of the Board of Trustees, was erected in 1906 on the site of a building burned that year. It was used as a men's dormitory until 1924; from 1924 to 1960 it served as a dormitory for women. It has now been reconverted into an administration building containing offices for the president, the deans, graduate studies, public relations, business, and other administrative offices.

Memorial Field House, completed in 1966, includes two large gymnasium areas, swimming pool and diving well, handball courts, wrestling room, generous locker room and shower facilities, physical therapy rooms, weight rooms, team rooms, offices, classrooms, and a lounge area.

Wilson Hall, was erected in 1893 as the model school and was named for A. W. Wilson, third president of the Board of Trustees. From 1941 to 1960 the building served as the library for the college. Since 1960, Wilson Hall has been occupied by the Department of Social Studies. In addition, part of the special education services is located on the ground floor.

The Rhodes R. Stabley Library named for the late Dr. Rhodes R. Stabley, chairman of the English-Speech Department from 1941 to 1958, was completed in the spring of 1961. The three story building houses 250,000 volumes and provides study room for about 550 students.

An instructional program in the use of library tools and reference books is carried on by the staff to develop needed skills in library use. The well-organized general holdings of 200,000 volumes are enhanced by the reference collection, 2,000 current magazines, extensive files of bound and microfilmed magazines and newspapers, state and federal documents, pamphlets and curriculum materials.

Most materials are available by the "open stack" system which encourages the habit of using books freely. Students having access to all library materials can broaden their education through browsing, as well as widen their interests through intellectual reading.

Comfortable reading areas have been arranged in the library. Exhibits and displays are frequently changed as a means of arousing interest and supplying information. The library is completely air-conditioned.

Leonard Hall, named for Jane E. Leonard, for many years preceptress of Indiana Normal School, was erected in 1903 as a recitation building, and was destroyed by fire on April 14, 1952. A new Leonard Hall was constructed by the General State Authority and opened in September, 1954. The new building contains classrooms, laboratories, faculty offices, and the Indiana Film Library. The English Department and Geography Department are also located in this building.

David J. Waller Gymnasium was completed in 1928 and is used for the women's health and physical education program. It includes two gymnasiums, a swimming pool, a physical therapy room, two classrooms, and numerous offices for the faculty. The Department of Law Enforcement is also located in this building.

Jean R. McElhaney Hall, completed in 1931 houses the art, business education, and the foreign languages departments, one entire floor being given to each. This building, both in appearance and in equipment for efficient work, is recognized as one of the finest educational buildings in the state.

John S. Fisher Auditorium, completed in 1939, has a seating capacity of 1600, and a well-equipped stage large enough to accommodate a cast of 100 people. Its design facilitates the presentation of intimate drama to a small group or super-spectacles to capacity audiences. Light, air, and sound may all be mechanically controlled by the director of any presentation.

John A. T. Keith School, completed in 1939, provides for a program of instruction from kindergarten through sixth grade, for the purposes of observation, demonstration and experimentation. The facilities include a library, a gymnasium, and a fine demonstration room with seats for 160 observers, which is a unique feature of the building. The school also contains the offices of the Director of Placement and the Director of Professional Laboratory Experiences. Some classrooms are also utilized for college instruction.

Special Education Building. This building, completed in 1961, is a wing of John A. H. Keith School and houses speech, reading, and psychological clinics and a classroom.

The Art Education Annex and six acres of land were bought in 1947. The building has been renovated and houses part of the art education department.

Military Hall, a war-surplus structure erected in 1947, is located on Grant Street. It contains offices, storage rooms and two classrooms for the Reserve Officers Training Corps.

The University Lodge is an important location in the instructional and recreational life of the university. Owned by students and faculty, the 100 acres of wooded hillside with its rustic lodge and three shelter houses, not only offers opportunity for nature study by science and conservation classes, but is in frequent demand for picnics, meetings, and winter sports.

Whitmyre Hall, named for Walter M. Whitmyre, who retired as dean of men in 1954 after serving for thirty-seven years, was completed in 1952. The dormitory houses 210 men students, recreational rooms, music practice rooms, dean of men's office, the dean of men's apartment, and the Whitmyre Dining Hall.

Langham Hall, named for Judge J. Nicholas Langham, Indiana County Judge for twenty years and a member of the Board of Trustees of the University for fourteen years, was completed in 1960. This dormitory houses 185 men students, a large recreation area, lounges, study rooms, and laundry room.

The new **Student Union** was completed in the fall of 1960, and doubled in size in 1963. Another addition was added in 1965. It houses a co-educational recreation center, the cooperative bookstore and offices, some student publication offices, and other recreational facilities for students. This building is owned and operated through the Student Union Association, Inc., and the Student Cooperative Association, Inc.

Cogswell Hall, named in honor of Mr. and Mrs. Hamlin E. Cogswell, former music department chairman and his wife—a teacher who composed the Alma Mater, is located on South Eleventh Street. The building, housing music classrooms, prac-

tice rooms and studios, and a recital hall, was completed in 1960.

Wahr Hall, named for Corinne Menk Wahr of the class of 1916 who left a large sum of money to the university for scholarship purposes, is located immediately adjacent to Langham Hall. This dormitory, housing 152 women students, recreation room and lounges, and quarters for an assistant dean of women, was completed in 1960.

Walsh Hall, named for Dr. Matthew J. Walsh, longtime professor and dean of instruction at Indiana, is located to the immediate east of Wilson Hall. This building, housing the Mathematics Department, provides classrooms for 200 students as well as faculty offices, lecture demonstration areas, and seminar rooms, was completed in 1960.

The Greenhouse of the University is used as an experimental and demonstration laboratory by the Science Departments in the conducting of biology courses.

The University Infirmary is located behind Cogswell Hall off South 11th Street on Papermill Avenue. Construction was started early in 1968 for a new Health Center to be located between Maple Street and Pratt Drive.

Louise Stanley and Ellen Richards Houses, located at the rear of Cogswell Hall off S. 11th St., are used by the seniors of the home economics department for participating in practical home management problems based on actual family needs and expenditures.

The New Athletic Field consisting of about 20 acres is being developed off S. 11th and Glass Streets. Already developed there are a new baseball diamond, six all weather tennis courts, and other facilities including a track. The George P. Miller Football Stadium was completed in October, 1962.

Agnes Sligh Turnbull Hall, Mabel Waller Mack Hall and Hope Stewart Hall, three new dormitories for a total of 600 or more women students have been constructed on the former Memorial Athletic Field. Turnbull Hall was occupied in January, 1963; the other two halls were occupied in the fall of 1963.

Jennie M. Ackerman Hall, located on East Campus near Pratt Drive, is the new Home Economics Building. Built at an approximate cost of $825,000, the new building contains classrooms, lunch room, and nursery school facilities.

McClellan Gordon Hall, a new dormitory for men, was completed in January, 1964. A new four-story structure which houses 230 men and the office of the assistant dean of men, is located just north of the John A. H. Keith School.

Joseph Uhler Hall, formerly Thaddeus Stevens School, has been completely remodeled and converted into a university classroom building. Located on the corner of Oakland Avenue and Washington Street, the building contains twelve classrooms and office space for members of the Education-Psychology and Elementary Departments, which will share the building.

Elkin Hall, a new five-story girls' dormitory is located on the southeast corner of School Street and Oakland Avenue. Costing over a million dollars, the building was completed in January, 1965, and houses 314 students.

Foster Hall, completed in October, 1965, contains dining facilities for 2,000 students. This new dining hall also contains a cafeteria and a snack bar and coffee shop.

PRIVATE DORMITORIES

Private investors have completed nine private dormitories adjacent to the university campus and these facilities provide housing for 1,082 undergraduate students.

Leininger Hall, located on Oakland Avenue and School Street, houses 100 women students on the second and third floors. On the ground floor is located the head resident's apartment and lounge area. Also on the ground floor is located a shopping complex, including a drug store, a beauty salon, a dairy store, record shop, and a local dry-cleaning pickup station.

Grant House, located on Grant Street and Wayne Avenue, houses 60 women and provides the required facilities for housing undergraduate women.

Algonquin Hall is located on Wayne Avenue and houses fifty women.

Stone Manor is located on Wayne Avenue and houses forty women students.

LeRoy Hall is located on Wayne Avenue and houses 222 women. In addition, it provides the necessary lounges, laundry, study areas and the apartment for the head resident.

Locust House, located on Locust Street, houses thirty undergraduate women students.

Oakland Hall, located on Thirteenth Street and Oakland Avenue, provides housing for 260 men students. Included in this facility are lounge areas, television room, concessions area, laundry and head resident's apartment.

Rooney Hall, located on Thirteenth Street and Oakland Avenue, provides housing for 250 men. Included in this facility

are lounge areas, study rooms, laundry room, and a head resident's apartment.

Wyoming Hall, located on Oakland Avenue, houses 140 women students on three floors, including lounges, recreation area, laundry room, study rooms and a head resident's apartment.

Conestoga Hall, located on Grant Street, houses 180 women students. This building has three floors providing accommodations for 180 women students, including lounge areas, study areas, a laundry area and a head resident's apartment.

THE GRADUATE SCHOOL

Indiana University of Pennsylvania offers programs of study leading to the degrees: Master of Arts, Master of Education, or Master of Science.

A qualified graduate student may earn the Master of Arts Degree in English, History, Geography, and Counseling Services. The Master of Education Degree is offered in Art, Business, English, Elementary, Mathematics, Counselor Education, Social Science, Music, Geography, Biology, Chemistry, Physics, Elementary Science, Science, Special Education, Speech & Hearing, Spanish, and Home Economics. A program leading to the Master of Science Degree is available in Mathematics and Geography and Physics. A non-degree program leading to certification as "Learning Resources Specialist" is available.

The primary purposes of the graduate programs at Indiana are: To encourage excellence in scholarship, to provide for depth in the student's special field, and to stimulate enthusiasm for continued cultural and professional growth.

Graduate credit is issued to students who are admitted to the Graduate School and who are registered in the graduate courses. (Courses numbered 500 or above.)

The graduate programs and courses are not listed in this bulletin but are shown in the "Graduate Bulletin." Interested persons should write to the Dean of the Graduate School for information regarding admission, course offerings, and degree requirements.

Applicants must qualify for admission to the Graduate School. Applications for admission should be filed with the Dean of the Graduate School at least six weeks before the beginning of the session in which the student wishes to initiate study. Admission to the Graduate School is governed by the following policy which has been established by the Graduate Council:

1. The applicant must present a Bachelor's degree from a college or university that has been accredited by the Middle States Association of Colleges and Secondary Schools or the appropriate regional accrediting agency.
2. The applicant must present a transcript of his undergraduate work showing a 2.5 honor point value for all four years of his undergraduate work. The 2.5 assumes a grade of A to have 4 honor points per credit hour, a grade of B to have 3 honor points per credit hour, and a grade of C to have 2 honor points per credit hour. If the applicant's undergraduate record does not meet this 2.5 honor point value, or if he is a graduate of an unaccredited college, he may be admitted by making a satisfactory score on an entrance qualification examination.
3. If the applicant is in the field of Education and interested in certification, he must possess a Provisional Pennsylvania Teacher's Certificate or its equivalent in the field in which he wishes to do graduate study.
4. A satisfactory recommendation must be obtained from the applicant's undergraduate department or from qualified references.
5. Students applying for the degree in Music Education must present evidence of musical maturity by means of a tape recording of their major area of music performance. This should be mailed to the chairman of the Music Department with a covering letter at the time of application.

THE SUMMER SESSIONS

The Summer School is an integral part of the year's work. Students from other colleges, teachers in service and students in regular attendance can secure in the summer session three to twelve hours credit toward any certificate or toward graduation in any curriculum. The courses are planned primarily for those who have had previous work and for those who are accelerating their work. An effort is made to meet all reasonable requests of teachers who are working toward higher certification or toward graduation.

All courses given in the summer session require the same amount of time and are granted the same credit as if taken during a regular semester. The Summer School Bulletin will be mailed to anyone desiring more complete information regarding the courses to be offered.

Dates. Three sessions, two of three weeks and one of six weeks, are planned for the summer of 1968. The pre-session will open Monday, June 10 and close Friday, June 28. The main

session starts Monday, July 1 and continues to Friday, August 9. The post-session opens Monday, August 12 and closes, Friday, August 30. It is thus possible for a student to secure three to twelve credits by attending the summer school.

Address Director of Summer Sessions for special bulletin indicating courses and activities of the Summer Session.

THE RHODES R. STABLEY LIBRARY

Named for the late Dr. Rhodes R. Stabley, chairman of the English-Speech Department from 1941 to 1958, was completed in the spring of 1961. The three story building will eventually house 300,000 books and provide study room for about 550 students.

An instructional program in the use of library tools and reference books is carried on by the staff to develop needed skills in library use. The well-organized general holdings of 220,000 volumes are enhanced by the reference collection, 2,000 current magazines, extensive files of bound and microfilmed magazines and newspapers, state and federal documents, pamphlets, and curriculum materials.

Most materials are available by the "open stack" system which encourages the habit of using books freely. Students having access to all library materials can broaden their education through browsing, as well as widen their interests through intellectual reading.

Comfortable reading areas have been arranged in the library. Exhibits and displays are frequently changed as a means of arousing interest and supplying information.

LIBRARY HOURS: Monday through Thursday: 7:45 A.M. to 10:30 P.M.; Friday: 7:45 A.M. to 9:00 P.M.; Saturday: 7:45 A.M. to 5:00 P.M.; Sunday: 2:00 P.M. to 9:00 P.M.

HOW TO APPLY FOR ADMISSION

1. Request an application form and catalog by writing to or visiting the Registrar's Office, Clark Hall, Indiana University of Pennsylvania, Indiana, Pennsylvania 15701.

THE SCHOLASTIC APTITUDE TEST

2. Plan to take the Scholastic Aptitude Test ("the College Boards") before January 1 of your senior year of high school. The Admissions Committee recommends that you first take the test in the spring of your junior year because your application, if complete, may receive early consideration in the fall of your senior year. If you have an excellent high school record and strong College Board scores, your application for admis-

sion may be approved by November 20 of your senior year.

3. Whether you take the College Boards in your junior year or not you are REQUIRED to take the test no later than December of your senior year. This requirement includes those applicants who are admitted early.

4. To arrange to take the College Boards, write to The College Entrance Examination Board, Box 592, Princeton, New Jersey 08540 for an information pamphlet and test application. You may also make arrangements through your principal or H. S. Guidance Counselor.

5. When you receive the information and test application, fill out the test application and designate the Indiana University of Pennsylvania as one of the schools that you want to receive a copy of your test scores. Return the test application to the Princeton, N.J. address.

6. Take the test on the scheduled date.

THE ADMISSION APPLICATION FORM
(Blue and White forms)

7. Your admission application is in two forms—one blue the other white. If one of these papers is missing, please write for it.

8. You may fill out and submit the blue form after JULY 15 of the summer following completion of your junior year. Women MUST submit the blue form before NOVEMBER 1 of their senior year. Men MUST submit the blue form before JANUARY 1 of their senior year. Limited housing and classrooms make the above closure dates necessary.

9. When you submit the blue form, enclose a check or money order for ten dollars payable to the Indiana University of Pennsylvania. This money will be used to meet the cost of filing and processing your application.

10. Mail the blue form and the $10 application fee (payable the Indiana University of Pennsylvania) to the Admissions Office, Clark Hall, Indiana University of Pennsylvania, Indiana, Pennsylvania 15701.

11. After September 10 of your senior year give the white form to your high school principal or guidance counselor and ask that the form be filled out and mailed directly to the Admissions Office. Photocopies of your high school record may be attached to the white form.

12. Your application is complete when the Admissions Committee receives your Senior College Board test results (usually by February 1), high school record (white form) the blue applicant information form and the application fee. In

some cases the Committee may request additional information such as a list of senior year subjects or a senior grade report.

WHAT HAPPENS AFTER MY APPLICATION IS COMPLETE?

1. The Admissions Committee will try to read, with care and understanding, each of the several thousand applications that are submitted each year.

2. Those persons who, in the Committee's judgment, meet its high standards for early admission receive by November 20, letters of admission. Decisions on most applications are deferred until later in the year. Final action on a completed application takes from 8 to 16 weeks depending on the number of applications that must be read. This delay is necessary if each application is to be examined carefully. Applicants who are not given early admission can expect a decision by March 15.

3. If you are admitted to an entering class, you are required to visit the campus on an appointed date to discuss your academic and career plans with deans and other interested advisors. Choosing a major and possible career is an important problem for young men and women. We hope that early consultation with knowledgeable advisors will help you make these crucial decisions.

4. Your campus interview and the payment of the $15 advance registration fee completes the processing of your application and signifies your intention to attend the Indiana University of Pennsylvania.

TRANSFER STUDENTS

Students at other colleges seeking to transfer to the University should file an official transcript of all college work and ask the college dean to forward a statement certifying that the student is entitled to honorable dismissal from that institution. Your high school transcript and college board scores should also be submitted. If you are not eligible to continue at your present college for academic or other reasons you should NOT attempt to transfer to Indiana. Students with average or below average academic records should NOT attempt to transfer to the University.

DEADLINES FOR TRANSFER APPLICATIONS

Stated closure dates for freshman applicants apply to transfer applicants.

APPLICATIONS FOR PART TIME STUDY

1. If you plan to take day classes Monday through Friday write to or visit Room 307, Clark Hall, Indiana University of Pennsylvania and ask for the application for part-time study.

2. If you plan to take evening or Saturday classes contact the office of the Dean of the School of Continuing and Non-Resident Education, Room 217, Clark Hall.

3. Fill out the application for part-time study and return it to Clark Hall before the appropriate deadline
Deadline for Fall semester: August 25
Deadline for Spring semester: January 15

NOTE: A new application form must be completed prior to EACH SEMESTER of part-time study. One form does not cover all future part-time work.

4. Please arrange for a copy of your transcripts from other colleges and universities that you have attended to be submitted to the Admissions Office.

5. At the end of 15 credit hours of course work a part-time student must have a 1.6 cumulative average to continue. At the end of 30 credit hours a part-time student must have a cumulative average of 2.0 to continue. Those persons who do not attain a 1.6 cumulative average at the end of 15 credit hours or a 2.0 average at the end of 30 credit hours cannot continue part-time study.

DEGREE CANDIDACY

If a part-time student completes 15 credit hours of "C" work and has a cumulative average of 2.0 or better, he may inquire at the Admissions Office about the procedure for becoming a degree candidate. Part-time students who have successfully petitioned for degree candidacy may seek full-time status by writing to the Dean of their school at least three months in advance of the semester they want to begin as a full-time student. Students who want to be degree candidates must submit a high school transcript and College Board scores to the Admissions Office.

READMISSION POLICY FOR STUDENTS WHO WITHDRAW FROM THE UNIVERSITY VOLUNTARILY

Students who withdraw from the University on a voluntary basis for reasons of health, financial difficulty, etc., and wish to re-enter, will need to notify in writing the Dean of the School in which they were enrolled as to their intent. This notification should be, at least, three months in advance of the beginning of the semester in which they wish to re-enter the University. The preceding guidelines apply also to part-time

degree candidates desiring full-time status for any given semester.

PRE-PROGRAMMING AND REGISTRATION

Students who are in full-time enrollment status are given the opportunity to pre-program with departmental advisors for the next semester of attendance. Students will pre-program in March for the first semester and in May for the pre summer session. Pre-programming for the second semester occurs in October. Class cards for the courses selected are pulled in the Programming Center at designated dates shortly after such pre-programming. Prospective freshmen will prepare a program of studies with departmental advisors during interview dates preceding the semester of entrance.

All students will accomplish registration and payment of fees by mail for the first and second semesters of each year. Registration materials are mailed to the student's home address and should be returned according to the schedule listed elsewhere in the catalog.

ACADEMIC REGULATIONS

Absence and Tardiness. The university has no cut system of absenteeism. In case of absence or tardiness, the student will fill out a blank and present it to the teacher for admission to the class.

The professor will pass judgment on the merits of the excuse and handle the matter accordingly.

The blanks will be available at any department office.

This plan puts the responsibility first upon the student, second upon the professor, and third upon the Deans of the Undergraduate Schools, who may in turn furnish the adviser and the Dean of Men or the Dean of Women with whatever information is necessary for a follow-up.

Whenever a professor feels that any student has been absent or tardy to an extent that might endanger scholastic standing, the professor will report the fact promptly to the office of the Dean of the appropriate undergraduate school.

Grades. The following grades are used in reporting the standing of students at the end of each semester or summer term: A, excellent; B, good; C, average; D, passed; F, failed; I, incomplete.

A grade of F can be cleared only by repeating the course in the regular way. The grade of I is used to record work which so far as covered, is of passing grade, but is incomplete because of personal illness or other unavoidable reason. It

must be made up within two months after the student returns to the university.

Quality Points. Quality points are assigned as follows: Grade A, 4 quality points per semester hour; B, 3 quality points per semester hour; C, 2 quality points per semester hour; D, 1 quality point per semester hour and F, no quality points.

To qualify for graduation, a student must have secured twice as many quality points as the number of semester hours he has earned in this university toward his degree. Quality points are not counted on grades from other schools and a student transfering from another school is held responsible for quality points only on work taken in this University.

Advisory System. Purpose of the advisory system is to assist the student in his orientation to university life. Each student is assigned to a faculty adviser who confers with him relative to his program, his activities, his academic work, the evaluation of his progress and his education in values. At mid-semester teachers make reports of unsatisfactory work to the student's adviser. The adviser consults with the student reported with the thought of assisting him to improve his status by the end of the semester.

Grade Reports. About a week after each semester or summer session a full report is given or mailed to every student. Parents do not receive reports as it is assumed that university students are sufficiently mature and trustworthy to report the facts to their parents.

Criteria Governing Continuance in the University. (1) For full-time students enrolled prior to June 1, 1965. It is expected that a student shall maintain an overall "C" average to continue in good academic standing. A student earning less than 17 quality points in a semester will be dismissed from the University unless his cumulative average is at least 2.0.

A student who has earned less than a C average may continue on probation for one semester. During the semester that a student is on probation he will carry a limited program of studies not to exceed 15 semester hours. Where feasible, courses in which he received "D" or "F" grades will be repeated. If a student fails to clear academically by earning a C average, he will be dismissed from the University unless his cumulative average is at least 2.0. Twelve semester hours is the minimum number of hours upon which a student's semester load will be computed for the purpose of determining a C average.

The student who is dismissed from the University under these circumstances will be provided with one opportunity to request readmission to the University and restore himself to

good academic standing, provided the Professional Standards Committee feels that there is a reasonable chance to acquire the required grade point average. He may return to the University after the lapse of at least one semester and pursue a program consisting of at least 12 semester hours and no more than 15 semester hours of work. All grades received for this semester must be "C" or better to earn the student the opportunity to request readmission at the conclusion of the semester.

If the student chooses to avail himself of the procedure provided for him to seek readmission, it will be his responsibility to notify in writing the Office of the Dean of the School in which he was enrolled at the time of his dismissal and the Office of the Dean of Students before April 1, if requesting readmission for the following summer sessions or for the Fall semester starting in September. Written requests must be made to the above mentioned offices before November 1, if requesting readmission for the Spring semester starting in January.

(2) For all full-time (a minimum of 12 credits per semester or a 12-weeks summer term) students enrolled after June 1, 1965. A student at the end of two semesters and the succeeding summer (a minimum of 30 semester credits **attempted**) must have a 1.6 cumulative average or better to continue in the university; and at the end of the summer following his fourth semester (a minimum of 57 semester credits **attempted**), he should have a 2.0 cumulative average. Students falling below these critical Q.P. averages will be dropped permanently for academic reasons.

Good Academic Standing signifies that the student has maintained a cumulative average of a C or 2.0 on all work completed in this university.

Probation signifies that the full-time student (freshman, sophomore, junior, or senior) failed to earn an overall C or 2.0 average on all work completed during a regular school semester.

Acceptable Academic Standing signifies that the student in his freshman or sophomore year has met the required critical average of 1.6, or 2.0 to continue in school even though he may have done probationary work during a semester.

Removing Probation. A full-time student required to remove probation (the result of failing to maintain a C or 2.0 average during the previous regular semester as a full-time student) must do so by earning an overall C average during the following regular semester on a minimum 12-hour load but limited to a 15-hour load. He may also remove probation by carrying a full 12-hour summer program upon which he earns an overall C average. A partial course load of make-up courses

in summer cannot be merged with the previous semester to offset probation.

Full-Time Student is one who is carrying a minimum of 12 semester hours during a regular semester or during the full 12 weeks summer sessions.

Classification of Students. Students are placed in one of four classes according to progress towards graduation.

A freshman has less than 30 semester hours and 62 quality points.

A sophomore has at least 30 semester hours and 62 quality points but has not attained junior standing. (Transfers having 30 or more semester hours are so classified for one semester.)

A junior has applied for junior standing and has been approved. (See Junior Standing explanation, below.)

A senior has been approved for junior standing and has earned 96 or more semester hours. (Persons holding degrees may be classified as seniors.)

Junior Standing. The main purpose of junior standing is to screen the student at the close of his sophomore year to assure him that success in a university is evident; and that the university intends to recommend him for a position if he maintains his progress at the same level. Formal admission to junior standing is a requisite for continuing the program in the university.

A student who is enrolled in his fourth semester of university work or who will have at least 57 semester hours at the end of the current semester must apply for junior standing during the current semester.

This application should be filled out completely by the student and his advisor and turned in to the office of the Dean of his School on or before the deadline set for the current semester. Each application is taken under advisement for approval or rejection by the Committee of Academic Standards within that School.

Students must meet the following requirements to obtain approval for junior standing:

1. The scholastic record must be "C" average or better for the first two years of work taken by the student, with a minimum of 57 semester hours, and the student must continue in good standing.

2. A passing grade must be attained in English I and English II. Students who transfer English credits to Indiana and are given credit for English II must attain at least

a "C" grade in English I. If less than a "C" is earned, it will be necessary for the student to take English II.

3. An adequate level of achievement as measured by the sophomore examinations in Reading, Writing, Mathematics, Social Studies, and Science will be required. A student who fails any one of the examinations must repeat the test or tests the next semester or summer session he is in college. Some students may be advised to take additional course(s) in the areas where test scores are lowest.

4. For the School of Education the voice must be free from objectionable qualities. Students who have failed to pass a speech test are required to take corrective work in the Speech Clinic until their deficiencies, if remediable, have been overcome. Irremediable cases are given special consideration by the committee.

5. The student should manifest academic and social maturity, professional zeal, and social consciousness. Additionally, he should have proved himself to be dependable, co-operative and to possess high principles and good moral character. Preferably, he should participate in some extra-curricular activities.

6. The student must have the endorsement of his department. A student who fails to receive the endorsement of his department should clarify his standing with the department or change his major field.

Students who fail to meet the above requirements will be given one semester or summer session to make them up. Students who fail to clear their deficiencies at the time of the second application will be dismissed from the university.

After the first application for Junior Standing only one department change will be permitted. If the student, after his first application, changes his department it is his responsibility to see that his new department has every opportunity to evaluate him as a candidate for a degree in that particular area.

Credentials will be examined by the Committees on Academic Standards and decisions will be reached on the basis of all evidence available.

FEES, DEPOSITS, REPAYMENTS

(Subject To Change)

Basic Semester Fee

The basic fee for all students is $140.00.

This fee covers registration and the keeping of records of students, library, student welfare, health services (other than extra nurse and quarantine), and laboratory facilities.

Students taking NINE or fewer semester hours shall pay at the rate of $14.00 per semester hour. Students taking more than NINE semester hours shall pay the regular basic fees.

OTHER FEES

Housing Fee. The housing fee for students is $306.00 per semester. This includes room, meals in one of the college dining rooms, and laundry of sheets and pillow cases.

Out-of-State Fee. Out-of-state students pay a basic fee of $20.00 per semester hour of credit.

Student Activity Fee. An activity fee is collected from all students and administered through the Student Cooperative Association under regulations approved by the Board of Trustees. This fee of $20.00 per semester covers the cost of student activities in athletics, lectures, entertainment, student publications, etc., and is payable in one sum for the semester at the time of registration. A fee of $7.50 is charged for Saturday campus and part time students.

Late Registration Fee. Each student registering after the date officially set for registration is required to pay an additional fee of $1.00 per day until the student is in regular attendance (except when permission for late registration has been secured in advance from the President because of illness or other unavoidable causes), provided that the total amount of the late Registration Fee shall not exceed $5.00. The same regulation shall apply to approved inter-semester payments.

SPECIAL FEES

Private Instruction in Music: The vocal and instrumental fee per semester is $50.00.

Damage Fee. Students are responsible for damages, breakage, loss, or delayed return of university property.

Infirmary Fee. After three days in the university infirmary the University shall charge students who regularly eat in the university dining room an additional $1.00 for each day. Students who room at the university but do not eat in the university dining room shall pay $3.00 per day after the third day. Day students admitted to the infirmary pay board at the rate of $3.00 a day. This charge includes the regular nurse and regular medical service but does not include special nurse or special medical service.

Degree Fee. A fee of $5.00 to cover the cost of a diploma must be paid by each candidate for a degree.

Transcript Fees. A fee of $1.00 is charged for the second and each subsequent transcript of records.

Delinquent Accounts. No student shall be enrolled, graduated, or receive a transcript of his records until all previous charges have been paid.

Other Charges. In addition to the above fees the average student will require approximately $75.00 per semester for books, gymnasium costume, student organization dues, etc.

Military Fee. An Activity Fee of $3.00 is required of all ROTC Cadets.

Advance Registration Deposit. A deposit of $15.00 must be made when students are accepted for enrollment. This $15.00 may be deducted when the first semester fees are paid but is not refundable.

Private Accounts. As a convenience to students, personal deposits may be made in the Student Co-operative Book Store and drawn against by countercheck from time to time. A small fee will be charged for this service.

SUMMER SESSIONS FEES

Basic Fee for Six-Weeks Summer Session. The fee for students enrolled for the regular Summer Session is $14.00 per semester hour. A minimum basic fee of $42.00 is charged.

Activity Fee. For the regular summer session the fee is $7.00 and for the pre- and post-summer sessions, $3.50.

Housing Fee. For the regular summer sessions the fee is $102.00 and for the pre- and post-sessions, $51.00. This fee includes room, meals and the laundry of sheets and pillow cases.

Out-of-State Fees. Students who are not residents of Pennsylvania will pay a basic fee of $20.00 per semester hour with a minimum charge of $60.00 for each session.

REPAYMENTS

No refunds will be made to students who are temporarily suspended, indefinitely suspended, dismissed, or who voluntarily withdraw from the university.

For personal illness, if certified to by an attending physician, or for other reasons approved by the Board of Trustees, the housing and basic fees for that part of the semester which the student does not spend in the university will be refunded.

TIME OF PAYMENTS

Payment in full of all Pre-Session fees ..... June 10, 1968
Payment in full of all Main Summer Session fees July 1, 1968
Payment in full of all Post-Session fees ..... August 12, 1968
Payment for the first half of first semester ... August 12, 1968
Payment for the second half of first semester
November 4-6, 1968
Payment for the first half of second semester
December 12, 1968
Payment for the second half of second semester
March 18-20, 1969

Payment for the entire semester may be made in September and January if desired. Above dates are for 1968-69. Dates for 1969-70 will be about the same. Exact dates for 1969-70 may be secured from the university's registrar or business office.

HOW BILLS AND CHARGES ARE TO BE PAID

All bills, including basic fee and housing fee, are payable on enrollment day for at least the first nine weeks. Payment must be made by the student at registration. Checks or money orders, in the exact amount of the account, should be made payable to the Commonwealth of Pennsylvania. Book Store purchases are on a cash basis. Checks for Activity Fee should be separate and made payable to the Student Cooperative Association.

Students will not be permitted to enroll for any semester until all bills previously incurred have been paid; nor will credit be certified to other institutions or to the Department of Public Instruction until all overdue accounts have been paid.

Students desiring to leave school before the close of a semester must report to the dean of students, registrar and to the business office to settle all unpaid accounts.

Meal tickets for visitors can be obtained in the Slater Company office.

FINANCIAL AID

The financial aid program at Indiana University of Pennsylvania is administered through the office of the Director of Financial Aids. A single financial aid application form is used for both scholarships and loans.

All students who are applying for financial aid at Indiana University of Pennsylvania must also submit the Parent's Confidential Statement of the College Scholarship Service. This form may be obtained from your high school counselor, prin-

cipal, or the College Scholarship Service, Box 176, Princeton, New Jersey. Applications for financial aid from entering freshmen must be on file in the Financial Aids Office by March 1 for those entering college in September, and by November 1 for those entering college in the following January.

Upperclassmen making a request must also have a Parents' Confidential Statement on file. This Statement can be secured at the Office of Financial Aids.

SCHOLARSHIPS

M. Vashti Burr Memorial Award. The sum of $100 is awarded annually to that student of Indiana University of Pennsylvania who is deemed by the faculty to be most deserving, having in mind his or her economic need and the excellence of his or her industry and scholarship. This award is given through the generosity of Mr. William V. Whittington, Washington, D. C.

Clark Scholarship. The Lieutenant Alpheus Bell Clark Memorial Scholarship was established by Mr. and Mrs. Steele Clark, Cherry Tree, Indiana County, in memory of their son. The sum of seventy-five dollars will be awarded each semester to that young man or woman, a senior in the University and a resident of Indiana County, who in the opinion of a committee chosen by the President, best qualifies for the honor in terms of academic ability, leadership, and service to the University with preference going to a veteran, or a son or a daughter of a veteran.

Harriet Farr Davis Scholarship in the Fine Arts. This scholarship worth fifty dollars ($50) is awarded each year to a senior in the Art Department who best meets a number of criteria established for this award. This scholarship was established by Dr. Guy P. Davis, a retired member of the faculty, in honor of his wife, Harriet Farr Davis.

Educational Opportunity Grants. The University receives under the Economic Opportunity Act of 1964 a sum of money to be given to students from "exceptionally low-income families" a grant from $200 to $800 a year. This grant must, however, be matched with some other aid from either the institution or an outside source. These grants are for four years.

Elementary Scholarship Award. Through the generosity of Mrs. Julia Bitner, Class of 1951, of the Elementary Education Department, an annual scholarship award of $50 is made each year to a senior in the Elementary Education Department who has maintained a fine academic record and who has strong professional promise.

Extension Homemaker Scholarships. Homemakers participating in the Home Economics Extension program contribute funds annually for scholarships to be given to sophomores, juniors or seniors who are majoring in home economics in several colleges in the state. Indiana awards six on the basis of 4-H experience, need, scholarship and other outstanding characteristics. Each award is for $200 a year.

Gorell Educational Fund Scholarships. Each year several scholarships are granted to entering freshmen at Indiana University of Pennsylvania. These scholarships are granted on the basis of need and academic record and are granted to Western Pennsylvania students. Funds for these scholarships come from the Gorell Educational Fund administered through the Pittsburgh Foundation.

J & J Scholarship. This Scholarship of $100 is given to a worthy student from the Indiana County area. The student must have a high scholastic average and be in need of financial assistance.

Junior Chamber of Commerce Awards. These awards are given annually to juniors selected by the officers of the Junior Chamber of Commerce and the Business Education Department faculty for $35 each for one semester only.

Kappa Delta Pi Scholarships. The Kappa Delta Pi Scholarship was established by the Beta Gamma Chapter of this university to honor that member of the sophomore class who is judged to be the ideal university student. This award of twenty-five dollars is made each year by a committee of the local chapter and is awarded on the basis of scholarship. The Beta Gamma Chapter beginning with the 1961-62 college year is also offering an award of $25.00 to the graduate student at Indiana University of Pennsylvania with the best academic record.

Law Enforcement Scholarships. Five full-tuition scholarships at $280 each and five half-tuition scholarships at $140 each will be awarded to students in the Law Enforcement program. The scholarships are given by the U. S. Department of Justice, Office of Law Enforcement Assistance. Applications and information can be secured from the Director of Law Enforcement. Indiana University of Pennsylvania.

Ray Metzel Mellowmen Scholarship. One scholarship is given annually to that junior or senior who is a member of the Mellowmen. The scholarship is worth $200 for one year.

Monday Musical Club String Scholarship. The Monday Musical Club of Indiana, Pennsylvania, gives a scholarship in the amount of $100 good for one year only to a string major in the Music Department.

The Club also gives $100 Scholarship to a Homer Center High School senior that is going into the music field.

Morris Scholarships. The Helen Wood Morris Scholarships were established by Lieutenant-Colonel L. M. Morris, of Altoona in memory of his wife, a graduate of the university. The sum of $125 will be awarded annually to students selected by a committee named by the institution, one award to a sophomore, the other to a junior. Students chosen must be in the highest quarter of their class, must be in need of financial assistance, and must have demonstrated worthiness in terms of character, personality, leadership and American citizenship.

Operation Friendship Scholarship. The award is given to a foreign student who demonstrates good will, character and scholastic achievement at Indiana University of Pennsylvania. The Loan and Scholarship Committee will name the recipient.

Ethyl V. Oxley Scholarships. Each year the Alumni of the Home Economics Department awards $75.00 scholarships to one, two or three outstanding students in the department. Awards are based on evidence of such characteristics as dependability, initiative in worthwhile professional experiences, accepting responsibility, social sensitivity and sincerity in dealing with people, sense of values, personality and scholarship.

The Lenora Pechan Scholarship. The Lenora Pechan Scholarship is awarded by Dr. Albert R. Pechan, a member of the Senate of the Commonwealth of Pennsylvania and of the Board of Trustees of the Indiana University of Pennsylvania in the amount of $100 each year ($50 each semester) to a sophomore student, a member of the Reserve Officer Training Corps, who has been an outstanding student in the ROTC and whose other academic work is satisfactory. First priority will be given to a student from Armstrong County, selected by the officers of the Reserve Officers Training Corps and the Faculty Scholarship and Loan Committee.

Pennsylvania Federation of Women's Clubs Scholarships. At least four scholarships of $100 each are offered annually to students in the art education department. These scholarships are provided by voluntary contributions from clubs to "Pennies For Art Fund," by the Pennsylvania Federation of Women's Clubs.

Raymond P. Phillips Athletic Scholarship. The Raymond P. Phillips Scholarship was established in 1966. A committee was named by the donor to handle all applications. The Director of Financial Aids is Chairman. Two scholarships at $200 each are given each year. The Scholarship holder must be participating in the sport to remain eligible.

Presser Foundation Scholarship. The Presser Foundation of Philadelphia awards two scholarships each year to music

students at the Indiana University of Pennsylvania. Interested music students should apply through the chairman of the music department.

Quota Club Scholarship. The Quota Club of Indiana has established a scholarship of $50 a semester or $400 for four years for a woman student at Indiana University of Pennsylvania.

ROTC Scholarships. The United States Army offers several two and four year scholarships. The United States Army pays for tuition, laboratory fees, textbooks and other required expenses except room and board. In addition the student receives $50 per month for the duration of the scholarship, except for a six-week Summer Camp Program where the pay is $120.60 per month. To qualify the student must complete the ROTC program and must display a strong desire for a career as a Regular Army Officer. Instructions on how to apply may be obtained from the Professor of Military Science.

Hannah Kent Schoff Memorial Scholarship. Annually a scholarship worth six hundred dollars ($600) will be awarded to two entering freshmen at Indiana University of Pennsylvania. Applicants must be graduates of Pennsylvania High Schools who wish to prepare for teaching. Application forms may be obtained by writing the Financial Aid Office, Indiana University of Pennsylvania, Indiana, Pennsylvania. Applications must be filed prior to March 1st of each year.

Secondary Education Club Scholarship. The Secondary Education Club grants a one-year scholarship for $50 to a secondary upperclassman.

Service Club Scholarships. The Kiwanis, Lions, and Rotary Clubs of Indiana, Pennsylvania, have scholarship programs which provide financial aid for approximately 16 students per year at Indiana University of Pennsylvania. These scholarships are administered by the local service clubs with assistance from the Financial Aid Office at the University.

Sgriccia Brothers Memorial Scholarships. Each year three scholarship awards of $100 each are granted to a senior in each of the following high schools: Marion Center, Penns Manor, and Purchase Line. These awards are made to the senior boy or girl planning to attend Indiana University of Pennsylvania who has attained the highest academic average during the tenth, eleventh, and twelfth grade years. Funds for these scholarships have been provided by the Sgriccia Brothers of Clymer, Pennsylvania.

State Scholarships. The Department of Public Instruction annually awards scholarships on the basis of competitive examinations held in November of each year. These are awarded in each county and senatorial district in the state. Each schol-

arship is worth $200 a year for four years and may be used at the State Colleges. Inquiries concerning State Scholarships should be sent to State Scholarship Program, Division of Guidance and Testing, Department of Public Instruction, P.O. Box 911, Harrisburg, Pennsylvania.

String Scholarship Fund. This Scholarship information can be secured from the Music Department. We want to thank the following for their contributions: Bruno's Restaurant; First National Bank in Indiana, Pennsylvania; Indiana Music House; and Pepsi Cola Bottling Corp.

Student Council Foreign Student Scholarships. The Student Council grants four full scholarships annually to foreign students who have not previously been in the United States, and who can complete their proposed program in one academic year. Applications should be submitted to the Foreign Student Adviser no later than March.

Syntron Foundation Scholarships. Through the Syntron Foundation of Homer City, four 4-year scholarships are awarded annually to freshmen. These scholarships are worth $350 per year. Eighteen scholarships are in effect each year. Preference is given to graduates of Blairsville, Homer City, and Indiana High Schools and other high schools in the county. Applications must be filed with the Director of Financial Aids by March 1. Nine of these scholarships are identified as C. S. Weyandt Memorial Scholarships and the other nine are identified as J. A. Metz Memorial Scholarships.

Theta Xi Scholarships. Each year through the generosity of the Theta Xi National Men's Fraternity four scholarships of full tuition are granted to students at Indiana University of Pennsylvania. Two of these scholarships are granted to members of the Beta Lambda Chapter of the Theta Xi. Two are granted to members of the student body at large.

J. M. Uhler Memorial Scholarships. In honor of a former President of the University, and a past President of the Indiana Kiwanis Club, this organization awards a $100 per semester scholarship for the recipient's four years in school showing adequate scholastic progress. These scholarships are available to graduates of high schools within Indiana County. This fund is administered by the J. M. Uhler Scholastic Committee of the Indiana Kiwanis Club.

Corinne Menk Wahr Scholarships. Through the generosity of Corinne Menk Wahr, Class of 1916, approximately fifteen scholarships are awarded each year to worthy students. The amounts range from fifty to one hundred and forty-four dollars, payable in the designated amount for each of four years. Applicants for Wahr Scholarships must be residents of Pennsylvania and must be interested in the teaching profession.

Applications may be secured from the Director, Financial Aid. In any one year as many as eighty students may be receiving a total of $9,000 of Wahr Scholarship money. Policy governing the scholarship fund is established by the Board of Trustees and administered by a committee appointed by the President of the University.

Nine Wahr merit recognition scholarships of fifty dollars each are given each year to students at the university for excellence in certain fields as follows: The student who excels in athletics; the student who contributes the most to campus welfare; the student who does the most to promote the fine arts; the student showing the most initiative in bringing new ideas or action to the Indiana campus; the student evidencing the most professional promise as a teacher; the student with the highest scholarship during the first three years of university; and the student who writes most effectively; and the graduate student with the most commendable record.

The Norah E. Zink Football Award. Dr. Norah E. Zink, a retired professor of the Geography Department of Indiana University of Pennsylvania has established an annual award of $25 which she gives that member of the varsity football team whose academic average shows the greatest improvement over the fall semester.

LOANS

Jennie E. Ackerman Loan Fund. By action of the Executive Committee of the Indiana University of Pennsylvania Alumni Association, the Jennie E. Ackerman Loan Fund was established in 1962, by contributions from alumni and friends. This fund commemorates the memory of Jennie E. Ackerman who served as Supervisor of Student Teachers at Indiana University of Pennsylvania for many years and is available to sophomores, juniors, and seniors who are maintaining satisfactory academic records at the University. The maximum outstanding amount extended to any one student cannot exceed $200. Interest is at the rate of 2% payable at maturity of the loan. Notes extended beyond that time will carry a 6% interest charge.

Robert Bellis Scholarship Loan Fund. A loan fund has been established at Indiana University of Pennsylvania by friends and relatives in memory of Robert G. Bellis, a graduate of Indiana State College. The Robert Bellis Scholarship Loan Fund, as the memorial will be known, will be used to grant loans to deserving students, preferably to juniors or seniors. Interest is at the rate of 2% payable at maturity of the loan. Notes extended beyond that time will carry a 6% interest charge.

Jane E. Leonard Memorial Loan Fund. This loan fund was established several years ago and has been built up largely through the work of the faculty and alumni. The fund now totals about $30,000. The governing board in charge of granting loans consists of a faculty committee appointed by the president of the University. The plan in operation provides for the granting of loans to sophomores, juniors, and seniors with interest at two per cent, payable at maturity of the loan. In special cases of emergency a freshman may arrange for a short-term loan during his second semester in the university. The maximum outstanding loan to any student cannot exceed $400. Applications are available at the Director of Financial Aids Office.

Thirty-day loans not to exceed $20 are available to all students in cases of emergency. No interest is charged. These loans are available upon application to the Dean of Students, Dean of Men, or Dean of Women.

Mack Loan and Scholarship Fund. A loan and scholarship fund has been established by members of the Mack family to be used for making loan and scholarship grants to worthy students with financial need. Preference will be given to freshmen and sophomores who can give evidence of academic excellence, financial need, and promise as a future member of the teaching profession. At the present time the maximum loan available is $200 per year. Interest is at the rate of 2% payable at maturity of the loan. Notes extended beyond that time will carry a 6% interest charge.

Dr. Joy E. Mahachek Loan Fund. A loan fund in the name of Dr. Joy E. Mahachek, former Chairman of the Mathematics Department at Indiana State College, has been established by the Alpha Sigma Alpha. Preference of this loan will be given to a sophomore with a minimum cumulative average of 2.0.

Alan P. Mewha Geography Memorial Loan Fund. This fund was established in 1959 and is administered by the faculty of the Geography Department. Juniors and Seniors have priority on loans from this fund. Interest rates are the same as those for the Jane Leonard Fund.

National Defense Student Loan Program. The National Defense Student Loan Program was authorized by the enactment of Public Law 85-864, the National Defense Education Act of 1958. The law requires that each borrower be a full-time undergraduate or graduate student, that he be in need of the amount of his loan to pursue his courses of study, and that he be, in the opinion of his institution, capable of maintaining good standing in his chosen courses of study. The law further provides that special consideration in the selection of loan recipients be given to (a) students with a superior academic background who express a desire to teach in elementary

or secondary schools, and (b) students whose academic background indicates a superior capacity or preparation in science, mathematics, engineering, or a modern foreign language. A student may borrow for college expenses in one year a sum not exceeding one thousand dollars ($1,000), and during his entire course in higher education, a sum not exceeding five thousand dollars ($5,000). Applications are available upon request at the office of the Director of Financial Aid.

Rusty Preisendefer Memorial Loan Fund. This fund was established as a gift given by Mrs. Suzanne Preisendefer Brickner in memory of her husband who was killed in action in South Viet Nam. Preference in granting loans from this fund shall be given to members of the advanced R.O.T.C. and upperclassmen. Loans will be made up to a maximum of $400 per individual with the first note carrying a 2% interest charge. Notes extended beyond that time will carry a 6% interest charge.

Flossie Wagner Sanford Student Loan Fund. The Pennsylvania Federation of Women's Clubs has established a student loan fund in honor of Flossie Wagner Sanford an alumna and former member of the faculty of Indiana State College. Loans from this fund are made to qualified students by the Faculty Loan and Scholarship Committee who need financial assistance. Interest is at the rate of 2% payable at the maturity of the loan. Notes extended beyond that time will carry a 6% interest charge.

Tau Kappa Epsilon Loan Fund. Through the generosity of a former Tau Kappa Epsilon faculty adviser, a sum of money has been made available for loans to members in good standing academically and with the fraternity. The maximum outstanding amount to any one student cannot exceed $400.

Men's Varsity "I" Loan Fund. The Men's Varsity I Club has built up a loan fund for members of varsity athletic teams in good standing. Members may borrow not more than $150.00 per year. Loans are made for a reasonable period of time and are interest free for the first year. Thereafter the interest rate is two per cent per annum.

EMPLOYMENT

Student Employment. Students are employed on a part-time basis in a number of departments on the campus. Positions are filled on the basis of financial need and the special abilities required in certain jobs. Students are assigned to such jobs as waiters in the dining room, typists, office clerks, library assistants, relief switchboard and elevator operators, and janitors. Students in need of employment should file an application in the office of Financial Aid. All assignments to student

employment are made by this office. Except in cases of extreme necessity, freshmen should not seek employment, but should plan to concentrate on their academic work.

Applications for student employment are not accepted from students until they are actually on campus. To be kept on student employment rolls, the student must earn at least a "C" average in his total academic program.

Student employment may be either under the Work-Study Program under the Higher Education Act or the regular university employment budget.

Work-Study Program. This program was initiated by the enactment of the Economic Opportunity Act of 1964. It is intended to stimulate and promote the part-time employment of students who are from low-income families. When the needs of all interested students from these income levels have been met, then any remaining funds may be used to provide employment for other students who have demonstrated financial need. The minimum hourly rate of pay is $1.25 per hour with fifteen hours per week.

STUDENT SERVICES

The student personnel staff of the university attempts to provide those services to students which should support the best learning climate possible. Recognizing that the academic program of the university is its reason for existence, the student personnel staff considers its program a most important supportive function of the university. Students are urged to become completely informed about these services and about the rules and regulations applying to them as citizens of a university community.

SOCIAL REGULATIONS OF THE UNIVERSITY

Enrollment in the University implies an agreement on the part of each student to comply with the customs of the University and to obey the regulations.

The University reserves the right to dismiss any student who refuses to conform to University regulations.

No firearms or ammunition may be stored in university-owned or university-supervised dormitories. Students living in private rooms or apartments in town may not possess or store firearms or ammunition without prior approval of the landlord.

There shall be no intoxicating beverages or gambling on university property, in fraternity houses, or in residences rented in town. Students 21 years of age or over are not subject

to the provisions of the ban on drinking providing they live in town and have prior permission from their landlords. Students living in town who are 21 years of age or over must assume full responsibility under the laws of the Commonwealth of Pennsylvania concerning supplying intoxicating beverages to those under the legal drinking age. Violation of this rule may lead to immediate suspension from the University. Students appearing on campus in an intoxicated condition regardless of age may be suspended.

Smoking will be permitted except in areas officially designated by the University as non-smoking areas. These include classroom buildings, the library, and many dormitory buildings which are considered unsafe for smoking. Smoking in these dormitories will be confined to prescribed smoking room areas.

Students are not permitted to act as sales or advertising representatives on campus without permission of the Dean of Students. Students should require outside sales representatives to show their authorization before making any commitment of any kind.

Students are not permitted to use or to have stoves, heaters or cookers, or other equipment for producing fire or heat in their rooms. Such equipment is prohibited by fire regulations and will be removed and confiscated by the fire inspector.

Non-commuting freshmen are not permitted to have cars at the University. Upperclass students living in dormitory residences are also not permitted to have cars on the University campus. Upperclass students living off campus will be permitted to have cars provided they are registered with the Dean of Student's Office. Students not commuting from home are not permitted to park on the campus between the hours of 8:00 a.m. and 5:00 p.m. daily. Exceptions to the above rules may be made in unusual circumstances by the Dean of Men or the Dean of Women.

ADVISORY SYSTEM

The objective of the advisory system is to provide an opportunity for each student to discuss problems relative to his scholastic work with an instructor in his major field. Each student is assigned a faculty adviser by the chairman of his major department and the Dean of Students' office. A regular advisory hour is scheduled at 11:00 a.m. on Tuesday and Thursday of each week, although a student may consult his adviser at other times. An attempt is made to keep the student with the same adviser throughout his program at the University.

CARS

Every student and every faculty or staff member who regularly drives a car on the University campus must register with the Dean of Students and have a sticker on the left side of the rear bumper. Parking violations are checked daily; drivers may be fined for illegal parking. These regulations also apply to motor bikes and scooters.

Students living in university-owned or university-supervised dormitories are not permitted to keep cars in Indiana unless special permission is given them by the Dean of Women or the Dean of Men.

WOMEN'S DINING ROOM POLICY

All freshmen, sophomore and junior women living in university owned or operated dormitories will take meals in the university dining halls unless excused by the Dean of Women for good cause. Senior women may take meals in the dining halls if they wish. All arrangements for off-campus meals must be made with the Dean of Women before June 1 or January 1. This policy is subject to change at the close of any semester. Any changes in dining room status during the semester must be approved by the Dean of Women.

WOMEN'S HOUSING POLICY

All single women except those living with immediate relatives, those working for room and board in approved private homes, graduates of other institutions, or veterans are required to live in university dormitories or university operated houses unless special permission is granted by the Dean of Women. Married women may arrange for accommodations off campus.

Note: Working for room and board constitutes the giving of twenty hours of work in exchange for room and meals. There shall be no exchange of cash monies except where the employer feels that the employee has done more than her share, or where extra work is done over and above the twenty hours.

Up to March 15, those students who have indicated their intention of returning in the fall will have rooms assigned to them as follows: If they desire to keep the rooms they have, these rooms are reassigned to them, unless for some reason it is felt wise or necessary to withdraw students from said rooms. As soon after March 15 as possible, the remaining rooms are chosen by lot. Only students who have indicated their intention of returning in the fall may reserve a room for the following year. Otherwise, their assignment to a room is cancelled and they take a place on the list of entering students.

General supervision of the personal and social welfare of women students is exercised by the Dean of Women, Assistant Dean of Women, and head residents. Student body, faculty, and administration cooperate to maintain high standards of social life and conduct. Privileges are granted according to official class ratings based on academic achievement. Restrictions which are put upon the freedom of students are felt to be necessary for successful study and living conditions and for the well-being of the group.

Participation in dormitory government is vested in the Women's Collegiate Association, of which all resident women are automatically members. Representatives from each living unit make up the Council, which serves as a clearing house for discussing difficulties and making recommendations concerning dormitory problems. A Judicial Board administers and enforces association regulations.

MEN'S DINING ROOM POLICY

All male students living in university buildings shall eat in a university dining room. Men living off campus who wish to eat in a university dining room may do so as long as space is available, but they shall make arrangements with the Dean of Men. Cooking in rooms in university buildings is absolutely forbidden. Assignments to a university dining room are on a semester basis except in cases of emergency and when excused by the Dean of Men.

The appropriate dress for men for the evening meal in university dining halls will be shirts with collars, slacks, socks, and hard-soled shoes. Blue jeans, shorts, and generally untidy appearance will not be tolerated. Shorts, sweat shirts, and tennis shoes are permissible dress for the breakfast and noon meals except on Sundays. Dress for the Sunday noon meal will be dress shirts with ties and coats. Socks are required at all meals.

These regulations are subject to change at the close of any semester.

Men's Housing Policy. Campus rooming facilities are under the supervision of head residents, student hall counselors or house heads, and these are responsible to the Dean of Men and Assistant Dean of Men. This group assists in effecting orderly procedures in resident living. All men, whether living on or off the campus, are expected to abide by the rules and regulations of the University.

All freshmen, except those who commute from home daily, or who live with relatives, or who are married, shall live in one of the dormitories, or other college property when accommodations are available. Other non-commuting students enter-

ing Indiana for the first time shall live in university property when they can be accommodated.

Likewise, upperclass non-commuting men under 21 years of age, shall live in one of the dormitories or other university property when space is available unless excused by the Dean of Men. Priority for assignments shall be to sophomores, juniors, and seniors, in that order.

Non-commuting men who cannot be accommodated on the campus are expected to select rooms in town from an approved list compiled in the office of the Assistant Dean of Men. All financial arrangements are the responsibility of the student and the landlord. The Assistant Dean of Men is responsible for supervising rooming accommodations in town.

The foregoing policy may be changed at the end of any semester.

FOOD SERVICES

There are three dining halls on campus, each providing twenty-one planned meals per week for resident students. Non-resident students may make arrangements to take meals in one of the dining halls through either the Dean of Women or the Dean of Men. All such arrangements are on a semester basis. Meals or snacks may be purchased in the Student Union Coffee Shop or in the cafeteria in Foster Hall. There are also restaurants and sandwich shops located around the edge of the campus.

Baggage. All baggage is delivered to the basement of the dormitory to which the student is assigned. Luggage should be plainly marked with the student's name and, if the room assignment has been made, should also bear the room number. Students living in university owned or university controlled houses should mark their baggage with the street address.

Laundry. The university provides each student with a laundered sheet and pillow case each week plus a laundered bedspread twice a month.

Laundry and ironing rooms are maintained on the ground floors of all women's dormitories and on the ground floors of the newer male dormitories.

Student Supplies. Students who live in university dormitories are furnished bed linen and bedspreads. Each student must provide blankets, towels, soap, needed toilet articles, etc. Curtains and draperies are provided.

Students must also furnish their own gymnasium attire and towels. The Physical Education Department requires reg-

ulation gymnasium and pool equipment, which are purchased in the College Book Store.

Each student is required to own a good college dictionary, approved by the English Department. Such a dictionary costs about $6.00 and can be purchased in the College Book Store. Core courses in English require the dictionary as a standard text; other college courses use it extensively.

Vacation and Guest Charges. Students may not remain at the university during Thanksgiving, Christmas, Easter, or summer vacation. Students and teachers are responsible for meals of their guests at current transient rates. The transient rate for meals is as follows: breakfast, 60 cents; lunch, 85 cents; dinner, $1.25.

A charge of $1.58 is made for overnight guests on Friday and Saturday nights. Arrangements should be made with the House Director, or Dean of Women, or Dean of Men, depending on the dormitory involved.

UNIVERSITY INFIRMARY

The University Infirmary is located at 406 South Eleventh Street directly behind Cogswell Hall. It is thoroughly equipped for all routine work. Four registered nurses and two physicians are on the infirmary staff. Its services are free to all regularly enrolled students except for special medications or prescriptions. A registered nurse is on duty at all times in case of emergencies. Physicians are on call also as needed.

Twelve beds are available where resident students may have three days of free hospitalization. All students seriously ill are transferred to the local hospital or to their home town hospitals.

A new University Infirmary is in the planning stage and should be ready for the 1968-69 university year. See page 48 for the infirmary fees.

SPECIAL CLINICS

Three clinics at the university offer diagnostic testing and remedial or improvement service or instruction in the following areas:

Psychological Clinic-diagnosis of academic and behavior problems and personal, vocational, and educational counseling.

Reading Clinic-diagnosis and remedial instruction for reading and spelling disabilities and instruction for the improvement of present skills.

Speech & Hearing Clinic-diagnosis of speech problems, hearing tests and evaluations, and a regular program of therapy.

These services are made available without charge to the students regularly enrolled at the university in order that they may be given the assistance necessary to remove deficiencies which would interfere with their successful performance and progress in the university and in their future work.

University students who need help in any of the areas suggested above are encouraged to use the facilities provided for them.

University students may of their own initiative come to any clinic for help, or they may be referred by any faculty member or university official.

PLACEMENT SERVICE

The services of the Placement Office are available to students who are graduating, students who are attending for certification, students who have been admitted to the graduate school, and alumni. The directors of the various departments take an active interest in the placement of their graduates. The Office supplies credentials to employers who are seeking applicants for positions, arranges for interviews, serves as a center where graduates may keep their records up-to-date, supplies occupational counseling service, and maintains a current file of job opportunities. A computerized information retrieval system is available which permits college graduates to make their qualifications known to employers seeking to fill their company's open positions. Positions are not guaranteed by the university, but Indiana's record of placement is one of the very best in Pennsylvania. The Placement Office also receives and makes available to graduates and undergraduates lists of vacancies in summer camp counseling.

MAIL

The University Post Office is located in the west wing of Foster Dining Hall, at the corner of Eleventh and Grant Streets. The mail is delivered to offices and dormitories from this location. As it is a branch of the Indiana Post Office, the University Post Office provides most postal facilities, including boxes for commuting students.

The hours are 8:00-4:00, Monday through Friday, and 8:00-11:30 a.m., Saturday. During summer school, the Post Office closes at 3:00 on weekdays.

COMMUTERS

Accommodations for women day students are provided in John Sutton Hall. There is a study room for men day students on the ground floor of Gordon Hall. Men may obtain lockers, in the basement of Whitmyre Hall, by applying at the office of the Dean of Men.

Library facilities provide pleasant study conditions for non-resident students, and the Foster Dining Hall Lounge is open to all students. Commuter mail is held at the University Post Office window. Mail boxes are available.

Day students may purchase lunches in the Thomas Sutton Dining Hall, the Charles Foster Dining Hall, the Student Union, or in the coffee shop of Foster Dining Hall.

SELECTIVE SERVICE REQUIREMENTS

All students must register with their Local Draft Board when they reach 18 years of age.

To secure a 2-S classification a student must complete the Selective Service Information card which is included in his registration packet. The students selective service number must be reported to the Assistant Dean of Men if it is received at a later date.

A student must carry at least 15 credit hours per semester, throughout the semester, to be eligible for a 2-S classification. Satisfactory progress at the University is necessary to retain a student deferment.

Application forms for the Selective Service Qualification Test are available at the office of the Assistant Dean of Men at appropriate times throughout the year.

Veterans. Children of a deceased veteran whose death was due to service-related causes may be eligible for educational assistance from the Federal Government under Public Law 634 (War Orphans' Educational Assistance Act). Immediately upon acceptance to Indiana, men and women who may qualify for such assistance should contact Veterans Administration to determine their eligibility. They should report to the Assistant Dean of Men before registering at the University if the Veterans Administration approves their training under Public Law 634. The office of the Veterans' Counselor is in Gordon Hall.

An individual serving with the Armed Forces for more than 180 days after January 31, 1955 is eligible for the Cold War G.I. Bill (PL 89-358) providing he meets certain other requirements. A prospective student should contact the Veterans Administration and submit to them the Veterans' Application for Program of Education.

Individuals eligible for the Cold War G.I. Bill must report to the office of the Assistant Dean of Men in Gordon Hall following registration and scheduling to prepare the necessary forms for education benefits.

Reserve Officers' Training Corps. The United States Army has a unit of the Reserve Officers' Training Corps at the uni-

versity. All physically, morally qualified male freshmen are expected to take and pass one year of the Basic Course of Military Science. Upon graduation from the regular university course and successful completion of the Reserve Officers' Training Corps Program, the student will receive a second lieutenant's commission in the United States Army Reserve. To make this program possible, deferments from the draft are issued to the students successfully meeting the University and ROTC requirements. Upon graduation, the former student serves on active duty for a period not to exceed two years, if called by the Secretary of the Army. This enables the student to obtain his university degree and then fulfill his obligation to his country.

STUDENT COOPERATIVE ASSOCIATION

The Student Cooperative Association plays an extremely broad role in the extracurricular life of the college. All students and faculty members belong to the Association. Generally speaking, almost all campus-wide activities outside of the instructional program are sponsored wholly or in part by the Association.

The **ACTIVITY FEE** is the chief source of income for the Association's activities. Upon payment of the fee each semester, every student receives an "I" card which will admit him free of charge to all University social, cultural, and athletic activities. Full refund of the fee will be given to students withdrawing from the University within one month from the first day of classes. After the first month no refunds will be given. Other income for the Association comes from the Co-op Bookstore profits, athletics income, and income from all other events sponsored by the Association.

FACILITIES OF THE ASSOCIATION

STUDENT UNION—The Student Union, built by the students through their Activity Fee, offers many facilities for the University family. Students may relax or watch television in the lounge, buy a snack or a complete meal at the coffee shop, listen to their choice of records in the music center, or play cards, billiards, or table tennis.

The Bookstore, the Student Bank, and the Cooperative Association offices are located in the Union, as well as the Penn, the Oak, the Student Government, the Student Union Board, and a general student organization office area.

The Student Union Board and the Union Director and Program Director plan an active program of lectures, dances, movies, receptions, exhibits, and other events throughout the year.

BOOKSTORE—The Co-op Bookstore is located in the Student Union Building. The store stocks a complete line of all needed textbooks, supplies, paper-back books and other requirements needed for class use. In addition, the shopper will find an extensive selection of records, college wear, stationery, jewelry, sundries and souvenir items.

The store is operated on a competitive retail basis with all profits from operations reverting to the Student Cooperative Association for use in supporting student activities.

BANKING SERVICES—The Student Bank is operated in the business office of the Student Union. Students receiving money from home and not wishing to take the risk of carrying it on their persons or leaving it in their rooms may deposit it in the bank and withdraw it as needed by the issuance of checks. University checks are good only on campus. To help defray the expense of operation, a nominal charge is made when an account is opened. Students are urged to use this service as a precaution against loss.

STUDENT PUBLICATIONS

INDIANA PENN

The **INDIANA PENN**, the campus newspaper, is published twice a week—Tuesdays and Fridays—by students who wish to gain writing experience. Interested students are advised to attend the organizational meeting which is held early each semester.

The positions of editors and news editors are filled by Student Government action upon recommendation of a student-faculty committee. The co-editors select their own staff. There are 10 paid staff positions.

Applications for editor and news editor may be obtained from the **PENN** adviser. Only those students with at least one semester experience on the **PENN** staff are eligible to apply for the two top positions. Advisor: Swauger.

OAK

The **OAK** is the University yearbook, a pictorial and written review of the year's activities. Subscriptions may be purchased during the Fall Semester in Leonard Hall. The Daily Bulletin will carry notices of the subscription drive.

Applications for staff positions may be obtained from the Director of Public Relations. From these applications, a committee, composed of students and faculty, selects the staff members. The ten paid positions on the staff are subject to the approval of the Student Government. Advisors: Judge, Swigart, Slenker.

PARCHMENT CONCH

The **PARCHMENT CONCH**, a student-sponsored magazine, gives under-graduates the opportunity to see their best literary efforts in print. Any student may submit articles, short stories, short plays, poems, and essays for publication. Instructions for submitting manuscripts appear in the Daily Bulletin in November of each year.

Application for the editorial positions on the **PARCHMENT CONCH** should be made to the advisers, but the final selection is made by the Student Government acting on the recommendation of the Committee on Publications. Advisors: Rider and Ianni.

UNIVERSITY DIRECTORY

The University Directory is distributed early in the fall term to students and faculty. It contains a directory of all properly registered students, of staff, and of University offices. Advisor: Knowlton.

INFORMATION BOOKLET

This handbook is distributed annually to all students free of charge. It includes rules and regulations, the extra-curricular program, and general information of interest to students.

UNIVERSITY LODGE

The University Lodge plays an important part in the recreational and instructional life of the University. Owned by students and faculty, this 100 acres of wooded hillside, with its rustic lodge, three picnic shelters, rope ski tow, toboggan run, and nature and hiking trails, not only offers opportunities for classes to study nature and conservation but also is in demand for picnics, meetings, and winter sports.

Any student or faculty member is welcome to use the Lodge property, but must be ready to identify himself by presenting an "I" card at the request of the caretaker.

During the winter sports season, ski equipment, sleds, and toboggans may be checked out for use.

EXTRA-CURRICULAR ACTIVITIES

A large number of extra-curricular organizations conduct active programs on the Indiana University of Pennsylvania campus. In order to be recognized as an official university organization, it must be approved by the Student Government Association and the Administrative Council of the University. Below are listed those organizations which are presently recognized as extra-curricular groups on the Indiana campus.

CLUBS AND ORGANIZATIONS

American Chemical Society
American Guild of Organists
Art Club
Association for Childhood Education
Campus 4H Club
Chess Club
Classics Club
Defense Supply Association
Democratic Club
English and Speech Club
Foreign Language Club
Foreign Students' Club
Geographical Society
Home Economics Club
International Relations Club and WUS
Junior Chamber of Commerce
Kaydeens
Mathematics Club
McKeldin Philosophy Society
Men's Student Leagues
Men's Varsity "I"
Music Educators Club
Non-Resident Women's League
Pershing Rifles
Physics Club
Psychology Club
Ranger Company
Republican Club
Rifle Team
Science Club
Social Science Society
Special Education Club
Speech and Hearing Therapy Club
Student PSEA-NEA
Student Government
Student Union Board
The Masquers
Unidentified Flying Objects
University Slide Society
University Drama Club
Women's Athletic Association
Women's Collegiate Association
Women's Judicial Board

CLASS ORGANIZATIONS

Each of the four classes—Freshman, Sophomore, Junior, and Senior—has a class organization, holds social and professional meetings, and sponsors a formal dance each year.

FRATERNITIES

Honorary —
Alpha Psi Omega, honorary dramatic
Chi Beta Phi, honorary science
Delta Omicron, honorary music for women
Delta Phi Delta, honorary art
Gamma Rho Tau, honorary for business men
Gamma Theta Upsilon, honorary geography
Kappa Delta Pi, honorary educational
Kappa Mu Epsilon, honorary mathematics

Social —
Panhellenic Association Women
Alpha Delta Pi
Alpha Gamma Delta
Alpha Omega Pi
Alpha Phi
Alpha Sigma Alpha
Alpha Sigma Tau
Alpha Xi Delta
Delta Zeta
Phi Lambda Chi
Phi Mu
Sigma Kappa
Sigma Phi Sigma

Kappa Omicron Phi, honorary home economics
Phi Mu Alpha Sinfonia, Music Fraternity of America, for male music students
Pi Gamma Mu, honorary social studies
Pi Omega Pi, honorary business
Sigma Alpha Eta, honorary for speech and hearing
Service —
Alpha Phi Omega, men's service
Sigma Sigma Sigma
Zeta Tau Alpha
Inter-Fraternity Council
Men
Delta Gamma Nu
Delta Sigma Phi
Kappa Delta Rho
Phi Sigma Kappa
Sigma Phi Epsilon
Sigma Tau Gamma
Tau Kappa Epsilon
Theta Chi
Theta Xi

RELIGIOUS LIFE

The religious life of students is cared for through the activities of some twelve independent organizations. Four of these, the Newman Club, Westminster Fellowship, Wesley Foundation, and Lutheran Center, maintain private meeting facilities near the campus. Others affiliate with and meet in local churches. For those groups too small to arrange their own needs, the university undertakes to provide limited facilities and faculty advisement.

In addition to the denominational emphasis of these groups, selected programs in the University Cultural Affairs series are devoted to religious topics. The annual Christmas Pageant, a cultural event primarily musical in nature, has become a tradition and attracts much attention in December.

All students are urged to attend their choice of the many community places of worship and to participate in the area, district, and national conferences which provide opportunity for the study of religious problems.

STUDENT GOVERNMENT

Student Government Association. Student Government Association is composed of representatives from all areas of the university. The President, the Vice-President, and the members of the Student Government Association are elected annually in a campus-wide election held in late fall. The Student Government Association is active in making recommendations to the Administration for the improvement of student welfare and is also active in promoting the general welfare of the university and good community relationships. The Student Government Association provides an opportunity for discussion of student problems, brings the student body, faculty, and administration closer together through a frank understanding of mutual problems and promotes the observance of policies that will lead to improvement of university campus life.

ATHLETICS

Both in terms of a variety of sports sponsored and complete facilities in which to sponsor them, the Indiana University of Pennsylvania athletic program can compare favorably to that of any college or university of similar enrollment.

In each season of the academic year the university sponsors at least two varsity sports simultaneously under the general direction of athletic director Charles L. Klausing. There are a total of nine sports sponsored.

Football and cross country are featured in the fall, while basketball, wrestling, swimming and rifle take the stage in the winter, and baseball, track and field, golf and tennis hold the spotlight in the spring.

Along with varsity squads in the respective sports, there are also football, basketball, wrestling and baseball teams which compete on the freshman or junior varsity level.

A well organized and varied program of intramural sports and athletic activities is conducted for both men and women. Organized league play is held in touch football, basketball, volleyball, swimming, and wrestling for men. Women compete in basketball, volleyball, badminton, swimming, and tennis. Coed activities are held in volleyball and badminton. Women also participate in a number of play days with other colleges and universities.

Memorial Field House and Waller Gymnasium are also used extensively for informal recreational play by students and faculty. Memorial Field House is open seven days a week for student use.

Crowned by the new two million dollar Memorial Field House dedicated in 1966 and also including the spacious six thousand seat George P. Miller Stadium completed in 1962, the physical plant for athletics at the south end of campus is complimented for intramurals by Waller Gymnasium and various other playing fields.

PUBLIC TRANSPORTATION

The community of Indiana is serviced by Edwards Lakes-To-Sea System, Lanich Bus Lines, and Grove City Bus Lines. Connections can be made with other major bus lines. Taxicab service is provided by two taxi companies. Approximately ten modern motels offer overnight accommodations.

INSURANCE

The Indiana University of Pennsylvania Board of Trustees instituted mandatory student accident and health insurance at

the University effective September, 1963. It is realized, however, that some of the freshman class students are covered by hospitalization policies of their parents. Where this is the case and additional coverage under the Indiana University of Pennsylvania student insurance plan is not desired, a waiver card can be submitted at the time of registration. The plan has been designed to protect all full-time students at the university. Full information concerning this insurance coverage is mailed to prospective students with their registration material.

SUMMARY OF ENROLLMENT FIRST SEMESTER 1967-68

	Men	Women	Total	
Full-Time Undergraduate Students				
Indiana Campus	2,733	3,511	6,244	
Armstrong County Center	178	287	465	
Punxsutawney Center	142	144	286	
Total Full-Time Students	3,053	3,942	6,995	6,995
Part-Time Undergraduate Students				
Indiana Campus	212	286	498	
Armstrong County Center	12	35	47	
Punxsutawney Center	5	7	12	
Total Part-Time Students	229	328	557	557
Nurses—Indiana Hospital	0	25	25	25
Graduate Students	497	310	807	807
GRAND TOTAL	3,779	4,605	8,384	8,384

PROGRAMS OF STUDY

Students at Indiana University of Pennsylvania may pursue programs of study in any one of the eight schools. A student may earn the degree of Bachelor of Arts, Bachelor of Science, Bachelor of Fine Arts or Bachelor of Science in Education. For each degree the student must earn 124 semester credits with an overall "C" average, in addition to meeting all other degree requirements for graduation.

DEPARTMENTAL ABBREVIATIONS

The following departmental abbreviations are used to identify courses referred to in this catalog.

Anth—Anthropology
Art—Art
Bio—Biology
BE—Business Education
Bus—School of Business
BM—Business Management
Chem—Chemistry
DE—Distributive Education
Econ—Economics
Ed—Education
ESci—Earth Science
El—Elementary
Eng—English
Lat—Latin
LRes—Learning Resource
Math—Mathematics
MS—Military Science
Mus—Music
Phil—Philosophy
Phys—Physics
PolS—Political Science
Psy—Psychology
PSN—Public School Nursing
Rus—Russian
Sci—Science
Soc—Sociology

FL—Foreign Languages
Fr—French
Geo—Geography
Ger—German
HE—Home Economics
Hist—History
HPe—Health & Physical Education
Sp—Spanish
SpE—Special Education
SpH—Speech and Hearing
SpRe—Speech Rehabilitation
SS—Social Studies
Zool—Zoology

KEY FOR COURSE NUMBERS

Courses for freshmen are numbered in the 100's, sophomores in the 200's, juniors in the 300's and seniors in the 400's.

Required courses are numbered between 1 and 50 and elective courses are numbered between 51 and 100, within each 100.

Elective courses open to sophomores, juniors, and seniors are listed in the 200's. Elective courses open to juniors and seniors are listed in the 300's.

General Education

The primary objective of general education is to develop those understandings, attitudes and values, and social skills that will enable the student to enjoy a life that is satisfying to himself as an individual and which will enable him to play a constructive role in his community and in society without respect to his professional or vocational interest or activity.

The following program in general education will be taken by all students. The courses in this program will be distributed throughout the four years of university study. Only basic or introductory courses in the program will be concentrated in the first two years of the student's program.

Numerous electives are offered in the General Education program to enable each student to explore subjects of particular interest. The student is free to exercise his own choice among the listed electives, although the department in which he is majoring may **recommend** that a student select a specific course.

GENERAL EDUCATION PROGRAM

HUMANITIES

	19-22 credits
Eng 101, Eng 102 English I and II	8
English 201 Literature I (Tragic Themes in Literature) or English 301 Literature II (Literature of Social Criticism)	2
Art 101 Introduction to Art or Music 101 Introduction to Music or English 103 Introduction to Theater	3

Foreign Language *Foreign Language 6
(Completion of intermediate sequence)
General Electives—Students who do not take a Foreign Language may elect 3 courses from the following list or from those in the above list—or he may elect 2 from these lists and 1 from among the laboratory sciences or those listed as General Electives Students who take Foreign Language may elect 1 from the Humanities or Natural Sciences. 3-9

Philosophy 328	Aesthetics	Music 301	Music History I
Art 115 or Art 116	Art History I or II	Philosophy 120	Intro. to Philosophy
		English 261	The English Bible as Literature
Philosophy 222	Ethics		
History 101	History of Civ. I		
Philosophy 221	Gen. Logic	Philosophy 110	Basics of Religious Thought and Practice
English 271	Modern American Fiction		

NATURAL SCIENCE

11-14 credits

Laboratory Science 8
The eight-credit laboratory science requirement in General Education may be met by any of the following:

Biology 103	General Biology I	Science 105	Physical Science I
Biology 104	General Biology II	Science 106	Physical Science II
Chemistry 111	General Chemistry I	Physics 111	Physics I
Chemistry 112	General Chemistry II	Physics 112	Physics II

Math 101 Foundations of Math I

Earth Science 212	Astronomy	Math 362	Statistics
Math 102	**Foundations of Math II	Earth Science 221	Geology
Math 366	Computer Mathematics		

SOCIAL SCIENCE

Each student will elect 5 courses from the following 15 credits

Pol. Sci. 111	American Citizenship	History 102	History of Civ. II
		History 104	***History of U.S. & Pa. II
Anthropology 110	Intro. to Anthropology	Psychology 201	***General Psychology
Economics 101	Basic Economics		
Geography 101	World Geography	Sociology 151	Principles of Sociology

ROTC or PHYSICAL EDUCATION 3 credits

Physical Education (Men) .....1 cr.
(Two semesters of physical education are required for all male students. Credit—½ semester hour per semester.)
Physical Education (Women) .....4 cr.
HPe 101 Health —2 cr.
HPe 102 Physical Education I —1 cr.
HPe 203 Physical Education II —1 cr.

THE SCHOOL OF ARTS AND SCIENCES

WILLIAM W. HASSLER, Dean

Ever since man began to systematize knowledge, a liberal education — which Mark Van Doren defines as "nothing less

than a complete one" — has enjoyed wide acceptance and support. With society's current emphasis on change, a broad liberal education is now virtually a necessity. Thus, today's statesman must be skilled not only in political science and history; he also should be knowledgeable in economics, geography, science and sociology in order to cope effectively with the intricate problems of modern statecraft.

The philosophy which undergirds the Liberal Arts program is the emphasis upon a fundamental understanding and application of basic principles implemented by the deliberative method of teaching which stresses the quality rather than the rate of learning. Consequently, our staff consciously endeavors not only to impart an appreciation of culture and the comprehension of our environment, but also to teach the student to analyze and to solve problems so that ultimately he may be able to teach himself.

The program of studies in the School of Arts and Sciences is designed to enable the student to pursue a general program, a study in depth within a chosen subject, an interdisciplinary program or a pre-professional program of study. All students in this school are required to take the program of general education of 52 semester hours as outlined on page 79. Each student also must elect a major in one of the subject fields in the Humanities, Natural Sciences or the Social Sciences. He may also elect a minor in a field approved by his adviser.

Students in the Liberal Arts program may receive either the Bachelor of Arts or Bachelor of Science degree depending on their program of study. Students majoring in the Humanities and Social Sciences will be awarded the A.B. degree, whereas Natural Science majors who complete the prescribed requirements for a single area of concentration may receive the B.S. degree or the A.B. degree depending upon the program elected.

Humanities	**Natural Sciences**
English, Speech-Theater	Biology
Foreign Languages	Chemistry
Philosophy	Mathematics
	Medical Technology
	Physics

Social Sciences

Economics	Psychology
History	Geography
Law Enforcement	Political Science
Geography	Sociology-Anthropology

Inter-disciplinary Studies

Students with dual or special objectives may, with the guidance and approval of his department and the Dean, undertake an inter-disciplinary program. One example of this type of program which has been established with well-defined requirements is that in Urban-Regional Planning and Administration as outlined on page 106. This is an integrated Social Science program which equips the students for vocational opportunities in a rapidly expanding field. Another type of inter-disciplinary program is illustrated by the study of a cultural area such as Latin America which would require the selection of courses in History, Language, Geography, Art, Literature and Political Science from both the Humanities and the Social Sciences. Other inter-disciplinary programs can be tailored for the various fields of student interests.

Pre-Professional Studies

Indiana University of Pennsylvania is accredited not only by the National Council for Accreditation of Teacher Education but by the Middle States Association of Colleges and Secondary Schools and The American Association of University Women as well. It is on the basis of the latter accreditation that pre-professional programs of study are offered for admission to Medical, Dental, Theological, Engineering and Law Colleges. These pre-professional programs of study are planned in consultation with advisers and the Dean.

Students interested in preparing for an engineering career may take 2.5-3.0 years of pre-engineering work at Indiana University of Pennsylvania followed by 2.0-3.0 years at an engineering college or a university. Graduates from this program receive the A.B. degree from Indiana University of Pennsylvania and the B.S. degree from the engineering school. The University has established co-operative programs with Bucknell University, Drexel Institute of Technology, Pennsylvania State University, and the University of Pittsburgh.

Students desiring to become Medical Technologists can take the 3 year program followed by a year of clinical work in a hospital approved by the Registry of Medical Technologists. Many hospitals in Pennsylvania cooperate with I.U.P. in this program. Among those participating are: Allegheny General in Pittsburgh, Conemaugh Valley in Johnstown, Altoona, York, Harrisburg and Abington hospitals.

FOREIGN STUDY PROGRAMS

The University supports several foreign study programs for which varying amounts of credit are given toward a bac-

calaureate degree. Students should consider these programs as a possible means of combining foreign travel and study. Since each program carries different credit provisions, students are urged to plan their four-year program several years in advance if they propose to participate in any foreign study arrangement.

Junior Year Abroad. Indiana has combined with thirty-eight colleges and universities in Eastern Ohio, West Virginia and Western Pennsylvania to offer a Junior Year Abroad program for students in the Humanities and Social Sciences. For this purpose the Regional Council For International Education operates a college in Basel, Switzerland where courses in language, art, literature, and national-international issues are taught in English. Students are housed with Swiss families and are encouraged to do extensive traveling during seven weeks of scheduled vacations. A comprehensive fee covering trans-Atlantic travel, tuition, housing and food for the year has been fixed at $2490 for 1967-68. Students will earn 30 semester hours of credit. Interested students should consult with the Coordinator, Social Science Division.

Indiana At Valladolid. For the past six years Indiana University has sponsored a semester of study at the University at Valladolid, Spain. For details see the course descriptions under the Foreign Language Department.

Contemporary Europe. For the past several years Indiana University has sponsored a six-week study-travel tour during the summer months. Designed for students in every department of the University. This tour emphasizes the basic political, economic, social, and military organization of contemporary Western Europe and the unresolved tensions of that part of the world. Background reading, lectures in major capitals, sight-seeing, and an extensive personal diary are required. Six hours of graduate-undergraduate credit is granted. In 1968 the group will visit London, Amsterdam, Copenhagen, Berlin, Munich, Salzburg, Vienna, Venice, Rome, Lucerne, Geneva, and Paris. A comprehensive fee covering trans-Atlantic transportation, housing and meals has been fixed at $1299 in 1968. Interested students should consult with the Coordinator, Social Science Division.

International Studies

A Center for International Studies has been established by the University. The center offers a program leading to a Bachelor of Arts Degree for students interested in this field. A program of studies is fully described within this section of the catalog.

HUMANITIES

The Humanities comprise those branches of learning which are primarily cultural in character. In addition to developing communication skills, the Humanities program enhances one's capacities of logic, moral values and imagination. The Humanities also broaden and enrich a student's appreciation of literature, art, music and philosophy. And as Matthew Arnold so aptly stated: "We shall find that this art, and poetry, and eloquence, have in fact not only the power of refreshing and delighting us, they have also a fortifying, and elevating, and quickening, and suggesting power, capable of wonderfully helping us to relate the results of modern science to our need for conduct, our need for beauty."

ENGLISH

JAMES R. GREEN, Chairman

A candidate for the A.B. degree in English usually chooses this program because he wishes a broad undergraduate education in liberal studies. He may intend to prepare for graduate study in English for eventual college teaching or for other non-academic professions. The A.B. degree program does not lead to certification in secondary English.

After satisfying the major requirement of thirty hours in required and elective English courses, a student may select a minor of at least fifteen hours in any one of several fields, such as history, philosophy, psychology, or foreign languages.

FIRST SEMESTER

Eng 101 English I	4
Biol 103 Biological Science I, or	
Sci 103 Physical Science I	4
*Foreign Language	3
HPe 101 Health (women), or	
MS 101 Military Science I	2
Social Science Elective	3
	16

SECOND SEMESTER

Eng 102 English II	4
Biol 104 Biological Science II, or	
Sci 104 Physical Science II	4
HPe 102 Physical Education (women).	1
or	
MS 102 Military Science I	2
*Foreign Language	3
Social Science Elective	3
	15-16

THIRD SEMESTER

Eng 211 Classical Literature	3
Art 101 Introduction to Art, or	
Mus 101 Introduction to Music, or	
Eng 103 Introduction to Theatre	3
*Foreign Language	3
HPe 203 Physical Education II (women)	1
Social Science Elective	3
Humanities, or	
Natural Science Electives	3
	15-16

FOURTH SEMESTER

Eng 212 American Literature to 1865	3
Math 101 Foundations of Math	3
Eng 214 Shakespeare	3
*Foreign Language	3
Social Science Electives	6
	18

FIFTH SEMESTER

Eng 213 Pre-Renaissance	3
Major Electives	3
Minor Electives	3-6
Free Electives	3-6
	15

SIXTH SEMESTER

Eng 251 History of Eng. Language	3
Minor Electives	3-6
Major Electives	6
Free Electives	0-3
	15

SEVENTH SEMESTER

Major Electives	3-6
Minor Electives	3-6
Free Electives	3-6
	15

EIGHTH SEMESTER

Major Electives	3-6
Minor Electives	3-6
Free Electives	3-6
	15

* Exemption may be granted upon successful completion of competency examination.

Required courses for an English major who is a candidate for the A.B. degree:

Eng 211 Classical Literature (instead of Eng 201 or Eng 301; one credit counted)
Eng 212 American Literature to 1865
Eng 213 Pre-Renaissance
Eng 214 Shakespeare
Eng 251 History of the English Language

Elective courses (any six of the following for a total of at least 30 credit hours):

Eng 215 The Augustans
Eng 216 Romantic Movement
Eng 214 Victorian Literature
Eng 218 Age of Spenser
Eng 219 Age of Milton
Eng 238 Nature of Drama
Eng 240 The Rise of the English Novel
Eng 241 Nineteenth Century English Novel
Eng 242 American Novel
Eng 243 Contemporary Short Fiction
Eng 244 Poetry and Its Forms
Eng 245 Modern Drama
Eng 246 Modern American Fiction
Eng 248 The Age of Johnson
Eng 271 Modern American Fiction
Eng 261 The English Bible As Literature
Eng 351 English Drama to Restoration
Eng 353 Restoration Literature
Eng 355 Modern European Literature
Eng 356 English Essayists
Eng 357 The English Novel: Conrad to the Present
Eng 358 Criticism of Contemporary Writing
Eng 359 Seminar in English Studies
Eng 363 The Structure of English
Eng 364 Trends in Linguistics

SPEECH AND THEATER

A candidate for the A.B. degree with a major in Speech and Theater will need 30 credits from the following courses:

Required

Eng 214 Shakespeare
Eng 231 The Dramatic Arts
Eng 232 Oral Reading
Eng 238 The Nature of Drama

Elective

Eng 245 Modern Drama
Eng 351 English Drama to the Restoration
Eng 353 Restoration Literature
Eng 371 Directing and Play Production
Eng 377 Creative Dramatics and Story Telling
Eng 378 Costume and Makeup
Eng 379 Stagecraft and Scenic Design
Eng 381 Fundamentals of Acting
Eng 469 Oral Interpretation
Eng 472 Public Speaking

Note: The major in Speech and Theater is required to spend at least one summer in The Drama Workshop during the pre-session and main session of the summer school.

The major in Speech and Theater will elect a minor of at least fifteen hours in another field.

FOREIGN LANGUAGES

HERBERT E. ISAR, Chairman

The Department of Foreign Languages currently offers a complete undergraduate program in French, Russian and Spanish. The Department also offers an Elementary and Intermediate sequence in Chinese and Greek, and is developing course work leading to a Bachelor's degree in Latin.

In the course of his study of a foreign language as an element of general education, the non-major student will acquire:

1. Some command of the language with primary stress on comprehension of the printed page, reasonable accuracy in pronunciation, some oral skill, and basic facts of structure.
2. Some knowledge of the facts of political and cultural history of the area where the language is spoken.
3. Some comprehension of current problems, trends, and directions of this area.
4. A better understanding of language as a condition and tool of mankind, its nature, functions, and relationships.
5. Development of greater understanding and tolerance of other cultures and their characteristic points of view.

Those who major in a foreign language acquire active skill in all phases of the language, enter more deeply into the history, culture, and literature of which it is the vehicle, and gain some comprehension of its historical development.

Students who specialize in a modern foreign language are better prepared for careers in government work, librarianship, and journalism. Those students who elect to do further graduate work in their languages may thereby prepare themselves for a career in college teaching. If they prefer teaching in the secondary area, they may gain excellent preparation and satisfy formal requirements for certification by entering into the Master of Arts in Education program which is offered by several leading graduate institutions.* Finally, language competence is a distinct asset in the business and industrial world, especially to those involved in foreign trade and overseas operations.

It is assumed that a student electing foreign languages as an area of concentration will have had at least two years of the language of his choice in high school. He will then begin with the sequence of 251-252 and will take concurrently with those courses 053-054, Oral Practice III and IV. If he has not had the language of specialization in high school, he will begin with 151-152 and 051-052, Oral Practice I and II. An area of concentration requires a minimum of 36 semester hours excluding 151-152 or the equivalent courses in high school. It is recommended that a student concentrating in one foreign language also complete at least the intermediate sequence in a second language, particularly if he is looking forward to graduate work. The second language will normally be started in the sophomore year or the preceding summer session.

* A graduate program leading to the Master of Education degree with major curriculum concentration in Spanish was initiated at the Indiana University of Pennsylvania in 1967.

DEPARTMENT OF FOREIGN LANGUAGES

Curriculum — School of Arts and Sciences

FIRST SEMESTER		SECOND SEMESTER	
English I	4	English II	4
Lab. Sci. I	4	Lab. Sci. II	4
Health or Mil. Sci.	2	Phys. Ed. or Mil. Sci.	1-2
FL 251	3	Intro. to Art or Music or Theater	3
FL 053	2	FL 252	3
	—	FL 054	2
	15		—
			17-18

THIRD SEMESTER

Lit. I or II	2
Hist. Civ. I	3
Phys. Ed.	1
FL 351	3
FL 055	1
FL 361	3
Free Electives	3-6
	16-18

FOURTH SEMESTER

Hist. Civ. II	3
Found. Math. I	3
FL 352	3
FL 056	1
FL 362	3
Free Elective	3
	16

FIFTH SEMESTER

Hum. or Nat. Sci. Elective	3
Soc. Sci. Elective	3
FL Elective	3
Free Electives	6-9
	15-18

SIXTH SEMESTER

Hum. or Nat. Sci. Elective	3
Soc. Sci. Elective	3
FL Elective	3
Free Electives	6-9
	15-18

SEVENTH SEMESTER

Soc. Sci. Elective	3
FL Elective	3
Free Electives	9
	15

EIGHTH SEMESTER

Soc. Sci. Elective	3
FL Elective	3
Free Electives	9
	15

Applicable to entrants of Summer 1967 (including ABC students) and thereafter. Students entering with 2 or 3 high school credits should start with FL251 and 053. Veterans with two years of active service will be exempted from the ROTC and Health and Phys. Ed. requirement.

PHILOSOPHY

ROBERT M. HERMANN, Chairman

Studies in philosophy should better equip any student to handle the theoretical issues which confront him, though final answers to the special questions of ethics, aesthetics, metaphysics, epistemology, and logic are not easily agreed upon. Many of the proposed solutions have had great influence on human history and should be studied for this reason if for no other. But because no thinking person can long escape private confrontation with philosophic problems we would insist with William James that "To know the chief rival attitudes towards life, as the history of human thinking has developed them, and to have heard some of the reasons they can give for themselves, ought to be considered an essential part of liberal education . . . A man with no philosophy in him is the most inauspicious and unprofitable of all possible social mates."

Students may take either a major or minor in the Philosophy Department. Those concentrating in other areas are encouraged to program electives in philosophy which relate to their primary fields. (See course description section.)

Requirements for the Major		Requirements for the Minor	
Phil. 120 Intro. to Philosophy	3 cr.		3 cr.
Phil. 221 General Logic	3 cr.		3 cr.
Phil. 222 Ethics	3 cr.		3 cr.
Phil. 324 History of Philosophy I	3 cr.		3 cr.
Phil. 325 History of Philosophy II	3 cr.		3 cr.
Phil. 328 Aesthetics	3 cr.		3 cr.
Phil. 430 Readings Colloquim	3 cr.		
Departmental Electives	12 cr.		3 cr.
	33 cr.		21 cr.

NATURAL SCIENCE

DWIGHT SOLLBERGER, Natural Science Coordinator

The objectives of the Science Departments as they relate to the Liberal Arts program are as follows:

1. To provide all students with the opportunity to secure a sound understanding of the nature of the scientific enterprise and its relationship to society.
2. To give science students a thorough background of knowledge in the specific field of their choice as far as the undergraduate years permit.
3. To provide science students with those skills and attitudes which will enable them to go on successfully to more advanced programs.

The Science Departments believe that science has a very important contribution to make toward the realization of the objectives of the Liberal Arts program. Those qualities that promote science such as critical thinking, respect for truth, objectivity, reasonable skepticism, and a desire for a better knowledge of the natural world are all attributes of the liberally educated individual.

The Science Departments believe that the objectives of the science program are reached through careful study in well-planned courses. The acquisition of knowledge gained by scientists is a first step in understanding the capabilities of science. Investigation in the classroom imparts to the student a knowledge of the methods scientists use to ferret out the secrets of their environment. Students are encouraged to undertake investigations to reach an understanding of the work of scientists. Students are expected to put forth their best efforts to achieve the objectives of the courses and of the science programs.

The Science Departments offer a major in the general area of the Natural Sciences. This major consists of 36 semester hours. However, most students will wish to extend this major by concentrating in one of several areas of Science through selection of suitable electives. These areas are Biology, Chemistry, Geography-Earth Science, and Physics. By selecting a field of concentration students will be eligible to enter graduate or professional schools in the area of their choice. Students who plan to continue their studies beyond the undergraduate school should study carefully the requirements of advanced programs and select courses to meet such requirements.

The vocational opportunities created by science have caused many young people to specialize in one of the many areas of Science with the expectancy of finding employment in work which is satisfying intellectually as well as financially. Today this hope is being realized as never before. University graduates who have had thorough preparation in the sciences have little difficulty in finding suitable employment. Some students use their preparation to continue work at the graduate level and qualify to do basic research which may or may not have ready application. Such students may join the staff of universities or research institutions. Others may join the staffs of industries where their knowledge and skills are used to improve the products of industry. Thus students are well-advised to look into the possibility of finding life-long work directly related to their preparation in science at the university level.

BIOLOGY DEPARTMENT

DONALD E. HOFFMASTER, Chairman

Requirements for the A.B. degree with a major in biology.

FIRST SEMESTER

	S.H.
General Biology I	4
General Chemistry I	4
English I	4
Intro. to Art, or	
Intro. to Music, or	
Intro. to Theater	3
Health, or Military Science	2
	17

SECOND SEMESTER

	S.H.
General Biology II	4
General Chemistry II	4
English II	4
General Elective	3
Health, or Military Science	2
	17

THIRD SEMESTER

Foreign Language	3
Algebra & Trigonometry	5
Organic Chemistry I	4
Biology Elective	3
	15

FOURTH SEMESTER

Foreign Language	3
Genetics	3
Literature I or II	2
Social Science Elective	3
Free Elective	4
	15

FIFTH SEMESTER

Ecology	3
Biochemistry	3
Social Science Elective	3
Free Electives	6
	15

SIXTH SEMESTER

Biology Elective	3
Social Science Elective	3
Free Electives	9
	15

SEVENTH SEMESTER

General Physiology	3
Biology Elective	3
Social Science Elective	3
Free Electives	6
	15

EIGHTH SEMESTER

Biology Elective	3
Biology Seminar	1-3
Social Science Elective	3
Free Electives	6-8
	15

Requirements for a minor in Biology

	S.H.
General Biology I	4
General Biology II	4
Genetics	3
Ecology	3
General Physiology	3
Biology Elective	3

BIOLOGY DEPARTMENT

DONALD E. HOFFMASTER, Chairman

Requirements for the B.S. degree with a major in biology.

FIRST SEMESTER

	S.H.
General Biology I	4
General Chemistry I	4
English I	4
Intro. to Art, or	
Intro. to Music, or	
Intro. to Theater	3
Health, or Military Science	2
	17

SECOND SEMESTER

	S.H.
General Biology II	4
General Chemistry II	4
English II	4
General Elective	3
Health, or Military Science	2
	17

THIRD SEMESTER

Foreign Language	3
Algebra & Trigonometry	5
Organic Chemistry I	4
Biology Elective	3
	15

FOURTH SEMESTER

Foreign Language	3
Anal. Geom. & Calculus	4
Organic Chemistry II	4
Literature I or II	2
Biology Elective	3
	16

FIFTH SEMESTER

Physics I	4
Biochemistry	3
Ecology	3
Biology Elective	3
Social Science Elective	3
	16

SIXTH SEMESTER

Physics II	4
Genetics	3
Biology Elective	3
Social Science Elective	3
Elective	3
	16

SEVENTH SEMESTER

General Physiology	3
Social Science Elective	6
Electives	6
	15

EIGHTH SEMESTER

Biology Seminar	1-3
Social Science Elective	3
Electives	6-8
	12

CHEMISTRY DEPARTMENT

PAUL R. WUNZ, JR., Chairman

In the School of Arts and Sciences the chemistry department offers two majors. One of these majors is the B.S. degree and the other the B.A. degree.

The B.S. degree in chemistry may be considered to be a professional degree. The student completing this major should be qualified to assume a position in industry as a chemist or to apply for admission to graduate school to work for advanced degrees in chemistry. Anyone considering teaching at the college or university level should plan on obtaining a B.S. degree and also a Ph.D. degree, since practically all universities require their staff members to have a doctorate degree.

The following B.S. curriculum should be at least equivalent to the minimum standards of the American Chemical Society.

B.S. Curriculum for Chemistry (Liberal Arts)

FIRST SEMESTER

	Cr.
Chem 111 Gen. Chem. I	4
Eng 101 English I	4
Math 152 Alg. & Trig.	5
MS 101 Mil. Sci. I, or	
HPe 101 Health	2
	15

SECOND SEMESTER

	Cr.
Chem 112 Gen. Chem. II	4
Eng 102 English II	4
Math 157 Anal. Geom. & Cal. I	4
MS 102 Mil. Sci. I, or	
HPe 102 Phys. Ed. I	2
Art 101 Intro. to Art, or	
Mus 101 Intro. to Music, or	
Eng 103 Intro. to Theater	3
	17

THIRD SEMESTER

Chem 231 Org. Chem. I	4
Math 257 Calc. II	3
Phys 111 Physics I	4
Eng 201 Lit. I, or	
Eng 301 Lit. II	2
Foreign Lang* I	3
	16

FOURTH SEMESTER

Chem 232 Org. Chem. II	4
Math 357 Calc. III	3
Phys 112 Physics II	4
Soc. Sci. Elective	3
Foreign Lang* II	3
	17

FIFTH SEMESTER

Chem 321 Quant. Anal.	4
Chem 341 Phys. Chem. I	4
Math 361 Diff. Eq.	3
Foreign Lang* III	3
Soc. Sci. Elective	3
	17

SIXTH SEMESTER

Chem 322 Inst. Anal.	4
Chem 342 Phys. Chem. II	4
Chem 301 Seminar	1
Foreign Lang* IV	3
Soc. Sci. Elective	3
	15

SEVENTH SEMESTER

Chem 411 Inorg. Chem.	3
Chem 498 Prob. in Chem.	1
Chem. Elective	3
Soc. Sci. Elective	3
Natural Sci. Electives	5
	15

EIGHTH SEMESTER

Chem 412 Inorg. Preps.	3
Chem 498 Prob. in Chem.	1
Chem. Elective	3
Soc. Sci. Elective	3
Natural Sci. Electives	5
	15

Foreign Lang.*—German or Russian

Social Science Electives
PolS 111 Amer. Citizenship
Anth 110 Intro. to Anthropology
Econ 121 Principles of Economics
Hist 102 History of Civ. II
Hist 104 History of U.S. & Pa. II
Psy 201 General Psychology
Geo 101 World Geography
Soc 151 Principles of Sociology

Natural Science Electives
Biology
Physics
Math
Geology
Chem 303 Glassblowing Tech.
Chemistry Electives
Chem 331 Org. Qual. Analysis
Chem 351 Biochemistry
Chem 333 Org. Mech. & Stereochemistry
Chem 441 Advanced Phy. Chem.
Chem 421 Advanced Inst. Anal.

B.A. Curriculum in Chemistry

The purpose of the B.A. curriculum is to give the student a basic training in chemistry, but with a flexibility to permit the student to obtain an adequate background in related areas. Students electing to take the B.A. curriculum would be those who are most interested in going into industry and perhaps in a fringe area of chemistry such as sales, technical service, patent law, or management. The training should be sufficient to permit the student to go to graduate school but at a slight disadvantage compared to a B.S. chemistry major.

The requirements for a B.A. degree in chemistry would be the university graduation requirements, mathematics through the third semester of calculus, and a maximum of thirty-five (35) hours of chemistry which must include the following courses: Chem. 111, 112, 231, 232, 321, 322, and 341. Based upon the interest of the student the remainder of the curriculum would be decided by the faculty advisor and the student involved.

EARTH SCIENCE

Coordinated by: Frederick R. Park, Chemistry Department
Paul A. Prince, Geography Department
Robert L. Woodard, Physics Department

It is recognized that a number of students will have professional interests in any one of several fields which might be called interdisciplinary or might be grouped as earth sciences. Most schools offering training in these areas at the graduate level require strong undergraduate backgrounds in mathematics, biology, chemistry, and physics although an exclusive concentration in one is not necessary and perhaps not desired.

The earth science major's program would be determined in consultation with his adviser, dependent on his post baccalaureate goals.

A.B. in Earth Science

FIRST SEMESTER

	Cr.
Eng 101 English I	4
HPe 101 Health	
Math 152 Alg. & Trig.	5
MS 101 ROTC	2
Phys 111 Physics I	4
	15

Female and male students not in ROTC are to schedule 4 credits in HPe in their program.

SECOND SEMESTER

	Cr.
Eng 102 English II	4
HPe 102 Physical Education	
Math 157 Anal. Geom. & Calc. I	4
MS 102 ROTC	2
Phys 112 Physics II	4
Intro. to Art, Music or Theater	3
	17

THIRD SEMESTER

Chem 111 Chemistry I	4
ESci 211 Solar System	3
Math 257 Anal. Geom. & Calc. II	4
Foreign Language III	3
S.S. Elective I	3
	17

FOURTH SEMESTER

Chem 112 Chemistry II	4
Eng Literature I or II	2
ESci 212 Stellar Astronomy	3
Math 357 Anal. Geom. & Calc. III	4
Foreign Language	3
	16

FIFTH SEMESTER

Bio 103 General Biology I	4
ESci 221 Solar System	3
Geo 346 Meteorology I	4
*Phys. or Chem.	3
S. S. Elective II	3
	17

SIXTH SEMESTER

Bio 104 General Biology II	4
ESci 222 Stellar Astronomy	3
Geo 351 Intro. to Oceanography	4
*Phys. or Chem.	3
S. S. Elective III	3
	17

SEVENTH SEMESTER

S. S. Elective IV	3
**Natural Science Sequence	7
**General Electives	3
	13

EIGHTH SEMESTER

S. S. Elective V	3
**Natural Science Sequence	6
**General Electives	3
	12

* A second level of Physics or Chemistry must be selected. If physics is chosen it could be continued in the sophomore year thus placing the foreign language in the junior year.

**Electives are expected to be mostly from the Natural Sciences although appropriate courses may be selected from the Humanities and Social Sciences with the approval of the adviser. Suggested Natural Sciences electives include the following and may be extended to any higher level course in any of the represented fields.

Differential Equations
Quantitative Analysis
Instrumental Analysis
Organic Chemistry
Physical Chemistry
Electricity and Magnetism
Electronics
Mechanics
Optics
Thermodynamics
Paleontology
Botany
Zoology
Climatology

REQUIREMENTS FOR EARTH SCIENCE EDUCATION MAJORS

ROBERT L. WOODARD, Adviser

FIRST SEMESTER

	Cr.
Eng 101 English I	4
HPe 101 Health	
Math 152 Alg. & Trig.	5
MS 101 ROTC	2
Phys 111 Physics	4
	15

Female and male students not in ROTC are to schedule 4 credits of physical education in their program.

SECOND SEMESTER

	Cr.
Eng 102 English II	4
HPe 102 Physical Education	
Math 157 Anal. Geom. & Calc. I	4
MS 102 ROTC	2
Phys 112 Physics II	4
Intro to Art, Music or Theater	3
	17

THIRD SEMESTER

Chem 111 General Chemistry	4
ESci 211 Astronomy I	3
Psy 201 General Psychology	3
Foreign Language III or	
Gen. Ed. Hum. Elective	3
S. S. Elective I	3
	16

FOURTH SEMESTER

Chem 112 General Chemistry	4
Eng Literature I or II	2
ESci 212 Astronomy II	3
Math 155 Computer Math	3
Foreign Language IV or	
Gen. Ed. Hum. Elective	3
S. S. Elective II	3
	16

FIFTH SEMESTER

Bio 103 General Biology I	4
Ed 305 Evaluative Methods	2
ESci 211 Physical Geology	3
Geo 346 Meteorology I	4
Psy 302 Educational Psychology	3
	16

SIXTH SEMESTER

Bio 104 General Biology II	4
LRes 301 Audio-Visual Education	2
Ed 302 History & Phil. of Am. Ed.	3
ESci 222 Historical Geology	3
Geo 351 Intro to Oceanography	4
	16

SEVENTH SEMESTER

ESci 491 Earth Science Seminar	1-2
His 104 History of U.S. & Pa. II	3
S. S. Elective III	3
Science and General Elective	7-8
	15

EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Practicum	2
	14

ELECTIVES

Science, mathematics, and other electives to be selected in consultation with adviser.

PHYSICS

RICHARD E. BERRY, Chairman

The physics student has a choice of two curricula in the school of Arts and Sciences. Either of these curricula is suitable preparation for graduate school. A very able student may prefer the B.A. program which contains a larger number of electives. A student wishing to cover the maximum physics to strengthen his speciality before entering Graduate School may prefer the B.S. program. Transfer into these programs from other curricula is possible prior to the junior year. These curricula do not include the education courses required for certification in public school teaching. The curriculum required for certification is described in the School of Education section of this catalog.

B.A. in Physics

This curriculum is designed to allow the maximum flexibility. The large number of elective courses may be used to satisfy many special requirements. Interdisciplinary degree programs such as geo-physics, or bio-physics can be prepared in consultation with your adviser. Students planning graduate school should consider this curriculum because they will have ample opportunity to complete this training in physics in graduate school.

FIRST SEMESTER

	Cr.
Eng 101 English I	4
Math 152 Alg. and Trig.	5
MS 101 ROTC	2
Phys 111 Physics I	4
	15

SECOND SEMESTER

	Cr.
Eng 102 English II	4
Math 157 Anal. Geom. & Calc. I	4
MS 102 ROTC	2
Phys 112 Physics II	4
Intro to Art, Music, or Theater	3
	17

THIRD SEMESTER

Math 257 Anal. Geom. & Calc. II	4
Phys 231 Electronics	4
Foreign Language III	3
S. S. Elective 1	3
S. S. Elective 2	3
	17

FOURTH SEMESTER

Eng Literature I or II	2
Math 357 Calculus III	4
Phys 222 Mechanics I	3
Phys 242 Optics	4
Foreign Language IV	3
	16

FIFTH SEMESTER

Math 361 Differential Equations	3
Phys 331 Atomic & Nuclear Physics	4
Natural Science Sequence	3
S. S. Elective 3	3
Elective	3
	16

SIXTH SEMESTER

Phys 322 Electricity & Magnetism I	3
Natural Science Sequence	3
Philosophy Elective	3
S. S. Elective 4	3
Elective	3
	15

SEVENTH SEMESTER

Phys 421 Selected Experiments I	3
Phys 483 Quantum I	3
*Advanced Social Science or Natural Science Sequence	3
Elective	3
Elective	3
	15

EIGHTH SEMESTER

*Advanced Social Science or Natural Science Sequence	3
S. S. Elective 5	3
Elective	3
Elective	3
Elective	3
	15

*Building on one of the required Social Science courses or the Natural Science Sequence.

B.S. in Physics

The Bachelor of Science curriculum is primarily a concentrated program of specialization in physics and is recommended for those students who may not attend graduate school. The B.S. graduate will have adequate preparation in Physics and Mathematics to hold a position in industrial or private research without further education. In addition, the concentration in these areas will enable him to more readily absorb the advanced physics required in graduate school.

FIRST SEMESTER

	Cr.
Eng 101 English I	4
Math 152 Alg. and Trig.	5
MS 101 ROTC	2
Phys 111 Physics I	4
	15

SECOND SEMESTER

	Cr.
Eng 102 English II	4
Math 157 Anal. Geom. & Calc. I	4
MS 102 ROTC	2
Phys 112 Physics II	4
Intro to Art, Music, or Theater	3
	17

THIRD SEMESTER

Math 257 Anal. Geom. & Calc. II	4
Phys 231 Electronics	4
Foreign Language III	3
S. S. Elective 1	3
S. S. Elective 2	3
	17

FOURTH SEMESTER

Eng Literature I or II	2
Math 357 Calculus III	4
Phys 222 Mechanics I	3
Phys 242 Optics	4
Foreign Language IV	3
	16

FIFTH SEMESTER

Math 361 Differential Eqs.	3
Phys 223 Mechanics II	3
Phys 331 Atomic & Nuclear	4
S. S. Elective 3	3
Elective	3
	16

SIXTH SEMESTER

Phys 322 Electricity & Magnetism I	3
Phys 342 Heat & Thermo	4
S. S. Elective 4	3
Elective	3
Elective	3
	16

SEVENTH SEMESTER

Phys 323 Electricity & Mag II	3
Phys 421 Selected Exp. I	3
Phys 483 Quantum I	3
S. S. Elective 5	3
Elective	3
	15

EIGHTH SEMESTER

Phys 422 Selected Exp. II	3
Phys 472 Modern Physics	3
Phys 484 Quantum II	3
Elective	3
Elective	3
	15

The Physics-Mathematics major consists of a minimum of 21 credits of Physics and 25 credits of Mathematics.

FIRST SEMESTER

	Cr.
Eng 101 English I	4
HPe 101 Health or	
MS 101 Military Science I	2
†Math 152 Alg. and Trig.	5
Math 155 Computer Programming	1
Phys 111 Physics I	4
	16

SECOND SEMESTER

	Cr.
Eng 102 English II	4
HPe 102 Physical Education or	
MS 102 Military Science I	2
Math 152 Anal. Geom. and Calc. I	4
Phys 112 Physics II	4
Intro to Art, Music, or Theater	3
	17

THIRD SEMESTER

Eng Literature I or II	2
Math 257 Anal. Geom. & Calc. II	4
Math 375 Modern Mathematics	3
Foreign Language III or	
Gen. Ed. Hum. Elective	3
S. S. Elective 1	3
	15

FOURTH SEMESTER

Math 357 Anal. Geom. & Calc. III	4
Phys 222 Mechanics I	3
Foreign Language IV or	
Gen. Ed. Hum. Elective	3
S. S. Elective 2	3
S. S. Elective 3	3
	16

FIFTH SEMESTER

His 104 History of U.S. & Pa. II	3
Math 361 Differential Equations	3
Phys 331 Atomic and Nuclear Physics	4
Psy 201 General Psychology	3
Elective	3
	16

SIXTH SEMESTER

LRes 301 Audio-Visual Education	2
Math 355 Geometry I	3
Math 371 Linear Algebra I	3
Phys Physics Elective	3-4
Psy 302 Educational Psychology	3
	14-15

SEVENTH SEMESTER

Ed 302 History and Philosophy of Education	3
Ed 451 Teaching of Science or	
Math in Secondary Schools	3
Phys 451 Selected Experiments I	3
Electives	6
	15

EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Professional Practicum	
and School Law	2
	14

†Algebra and Trigonometry will be taken by those students who have not shown the necessary pre-calculus proficiency. These credits are not considered as part of the major.

MATHEMATICS

MELVIN R. WOODARD, Chairman

The purpose of the program for a Mathematics concentration as a part of the Natural Science major is to permit the students to obtain as much quality mathematics training as is possible under the existing program structure. The course offerings are planned so that each student will complete a sequence of courses including algebra, geometry, and analysis through advanced calculus. The additional course offerings are sufficient to enable each student to progress to a higher level of mathematical training or to supplement the main sequence with courses which will strengthen his knowledge in a specific area of mathematics.

Students who graduate in this program have excellent opportunities. They are fully prepared to continue advanced study in graduate schools provided they maintain the necessary quality point average. Although this program is not normally considered a terminal program in mathematics, many of our students are employed in business, industry, and government in positions where they use their mathematics training. There is a great demand for students who have had courses in data processing using the digital computer such as the sequence offered at Indiana University of Pennsylvania. Our placement service has been very effective in helping to place graduates.

A major requires a minimum of 37 credits. A physics minor of 14-21 credits is recommended. Another minor can be approved by the adviser. 14 credits of science are required.

FIRST SEMESTER

	Cr.
Eng 101 English I	4
HPe 101 Health or	
MS 101 Military Science I	2
†Math 152 Algebra and Trigonometry	5
Math 155 Computer Programming	1
Foreign Language	3
	15

SECOND SEMESTER

	Cr.
Eng 201 English II	4
HPe 102 Physical Educatioo I or	1
MS 102 Military Science I	2
Math 157 Anal. Geom. and Calc. I	4
Intro to Art or Music or Theater	3
Foreign Language	3
	15-16

THIRD SEMESTER

Math 257 Anal. Geom. and Calc. II	4
*Phys 111 Physics I	4
HPe 203 Physical Education II	1
Math 375 Modern Mathematics	3
Humanities or Natural Science Geo. Ed. Elective	3
Eng 201 Literature I	2
	17

FOURTH SEMESTER

Math 357 Anal. Geom. and Calc. III	4
*Phys 112 Physics III	4
SS Gen. Ed. Elective	3
Math 355 Geometry I	3
Eng 301 Literature II	2
	16

FIFTH SEMESTER

Math 301 Differential Equations	3
**Science Elective	3-4
Math 371 Linear Algebra I	3
SS Gen. Ed. Elective	3
Elective	3
	15-16

SIXTH SEMESTER

Math 381 Advanced Calculus I	3
Science Elective	3-4
Math Elective	3
SS Gen. Ed. Elective	3
Elective	3
	15-16

SEVENTH SEMESTER

Math Elective	3
SS Gen. Ed. Elective	3
Elective	10
	16

EIGHTH SEMESTER

Math Elective	3
SS Gen. Ed. Elective	3
Elective	9
	15

†Exemption test available. Does not count towards major.

*Another two course sequence of science may be approved by adviser.

SOCIAL SCIENCE

RAYMOND L. LEE, Social Science Coordinator

The Social Science Division spans five areas of the Social Sciences—Anthropology, Economics, History, Political Science, and Sociology. As a department it is organized to perform two functions:

1. To provide a General Education Program for all students.
2. To offer fields of concentration within the various Social Science disciplines (24 semester hours are required, including General Education courses in that area).

The Social Sciences share a concern for man as a social being, both in his reaction to and molding of his environment and in his group and institutional relationships. Within this general framework various disciplines focus their attention on a segment of the overall pattern. History is concerned with man's past—the actual record of man on earth thus far. Political Science is concerned with man as a political animal—the art and science of government. Economics is concerned with the production and distribution of goods within various institutional arrangements. Anthropology focuses its attention on primitive societies in an effort to gain a clearer understanding of man as a social animal. Sociology is chiefly concerned with the informal controls exercised by groups in more complicated societies. In every instance the common denominator is man. Most social scientists share a belief that man can alter, control, or modify his destiny through the application of knowledge and institutional arrangements.

Vocational opportunities that emerge from the Social Science disciplines are not easily classified. Many students find that a broad background in this area is excellent preparation

for specialized work in business, government, and journalism. Economics has long been a stepping stone into management assignments; Political Science is frequently a point of departure for those interested in government service at either the electoral or civil service level. History has long been regarded as an excellent general background for all kinds of assignments. A combination of History-Political Science is basic for pre-law students. Anthropology and Sociology serve as fields of concentration preparatory to work in such diverse occupations as Public Relations and Museum work. Graduate work in all areas may lead to college teaching assignments.

DEPARTMENT OF ECONOMICS

FRANCIS G. McGOVERN, Chairman

The Department of Economics sponsors offerings of three types: a program directed to the needs of students desiring a major concentration in economics, a General Education elective, and various specialized courses open to Social Science and other majors.

Principles of Economics I, or Basic Economics if accepted by the department in substitution, serves as a foundation for later economics courses for non-departmental majors; Principles I and II are prerequisites to later courses for those majoring in economics. The departmental majors program is designed for those planning careers as economists in education, government, industry, or finance, or who wish to prepare for related fields such as labor relations. Today's professional economist occupies an increasing active role in the American society, and great opportunity exists for qualified people.

Econ 101, Basic Economics, is the department's General Education offering. It gives emphasis to topics studied in greater depth in the Principles I and II courses, and is designed for the student whose course contact with economics must be limited to three semester hours.

The upper-division Electives are open to qualified non-departmental as well as majors and are designed to aid the student in developing integrated insights into the workings of the American society from their respective standpoints. The course number and title of the earlier elective Econ 241, Contemporary Economic Problems, have been deleted; the course now appears under the listing Econ 122, Principles of Economics II, and Econ 122 must henceforth be programmed wherever Contemporary Economic Problems is required.

To achieve concentration in economics a total of twenty-seven semester hours must be programmed from the courses listed below. Achievement of a minor in economics requires fifteen semester hours. Economics may also be part of the twenty-one hour comprehensive Social Science minor described elsewhere in this bulletin.

CORE COURSES, ECONOMICS MAJORS

Econ 121	Principles of Economics I	3 Cr.
Econ 122	Principles of Economics II	3 Cr.
Econ 221	Macroeconomic Analysis	3 Cr.
Econ 222	Microeconomic Analysis	3 Cr.
Econ 321	History of Economic Thought	3 Cr.

ELECTIVES

Econ 101	Basic Economics	3 Cr.
Econ 241	Contemporary Economic Problems—See text above.	
Econ 325	Money, Banking, and Monetary Policy	3 Cr.
Econ 330	Industrial and Labor Relations	3 Cr.
Econ 335	Public Finance	3 Cr.
Econ 340	Economic Development	3 Cr.
Econ 341	Economic Development of the United States	3 Cr.
Econ 342	Economic Development of Modern Europe	3 Cr.
Econ 343	Economics of Population and Manpower	3 Cr.
Econ 345	International Economics	3 Cr.
Econ 350	Comparative Economic Systems	3 Cr.
Econ 355	Introduction to Econometrics	4 Cr.
Econ 360	Special Studies in Economics	2 Cr.
Econ 390	Readings in Economics	1-2 Cr.
Math 362	Probability and Statistics	3 Cr.

FIRST SEMESTER

	Cr.
Eng 101 English I	4
HPe 101 Health or	
MS 101 Military Science I	2
Laboratory Natural Science	4
Foreign Language	3
Gen. Ed. Soc. Science Elective	3
	16

SECOND SEMESTER

	Cr.
Eng 102 English II	4
HPe 102 Phys. Ed. I or	
MS 102 Military Science I	1-2
Laboratory Natural Science	4
Foreign Language	3
Econ 121 Principles of Economics I	3
	15-16

THIRD SEMESTER

Math 101 Foundations of Math.	3
Art 101 Introduction to Art or	
Mus 101 Introduction to Music or	
Eng 103 Introduction to Theater	3
HPe 103 Phys. Ed. II (women)	1
Gen. Ed. Soc. Science Elective	3
Gen. Ed. Humanities Elective or	
Gen. Ed. Natural Science Elec.	3
Econ 122 Principles of Economics II	3
	15-16

FOURTH SEMESTER

Econ 321 History of Economic Thought	3
Gen. Ed. Soc. Science Electives	6
Gen. Ed. Humanities Electives	3-6
Literature I or II	3
	15-18

FIFTH SEMESTER

Econ 221 Macroeconomic Analysis	3
Economics Elective	3
Electives in Minor Field	6
Free Electives	3
	15

SIXTH SEMESTER

Econ 222 Microeconomic Analysis	3
Economics Elective	3
Electives in Minor Field	6
Free Electives	3
	15

SEVENTH SEMESTER

Economics Electives	6
Elective in Minor Field	3
Free Electives	6
	15

EIGHTH SEMESTER

Free Electives	15
	15

GEOGRAPHY

THOMAS G. GAULT, Chairman

The function and purpose of geography is to prepare the future citizen to make rational judgements in his private and public life as it relates to the use of natural and cultural resources. Geography also acts as a meaningful integrator of the many subject matter areas taken by the student.

Though geography is listed as social science in Arts and Science curricula, it is of broader scope. Geography includes physical geography (earth science), cultural geography, economic geography, urban and regional planning, or combines these for a broad understanding of man in his total environment.

Vocational opportunities in geography are expanding rapidly. Students will find a wide variety of well-paid positions in government service, marketing, urban and regional planning, army and naval map services, editorial positions, and business.

There are three options for a major in the Geography Department in the School of Arts and Sciences: (1) General Geography, (2) Earth Science-Geography, and (3) Urban/Regional Planning.

A major in geography consists of 36 semester hours in geography course work as listed in following pages. The options are exercised through judicious use of the minor and electives.

A minor in geography consists of 15 semester hours of geography course work including those taken as General Education as follows:

1) World Geography or Physical Geography

2) Cultural Geography or Economic Geography

3) One physical geography elective: Climatology, Meteorology, Physiography, Geology, Oceanography, Cartography, Conservation, Resource Use

4) One human systematic elective: Political Geography, Geog. Infl. in History, Trade and Transportation, World Problems in Geography, Intro to Urban/Regional Planning.

5) One Regional Geography elective: Europe, Far East, Southeast Asia, Anglo-America, Africa, U.S.S.R., South America, Australia, U.S. and Pa., Pennsylvania.

Geography Major

FIRST SEMESTER

	Cr.
English I	4
Biol. I or Chem. I or Physics I or Geol. I	4
Physical Geography	3
General Ed. Soc. Science Elective	3
Military Science or Health	2
	16

SECOND SEMESTER

	Cr.
English II	4
Nat. Science Continued	4
Cultural Geography	3
Gen. Ed. Soc. Sci. Elective	3
Military Science or Phy. Ed. I	2-1
	15-16

THIRD SEMESTER

Foreign Language III	3
Literature I or II	2
Math. 152	5
Economic Geography	3
Intro. to Art or Music or Theater	3
	16

FOURTH SEMESTER

Foreign Language IV	3
Gen. Ed. Nat. Sci. Elective	3
Geology or Physiography	3-4
Geography Anglo-America	3
Phy. Ed. II (women)	1
Gen. Ed. Soc. Sci. Elective	3
	15-17

FIFTH SEMESTER

Gen. Ed. Soc. Sci. Elective	3
Geography Seminar	3
Geography Elective	3
Minor Elective	3
Meteorology or Climatology	3-4
	15-16

SIXTH SEMESTER

Cartography	3
Regional Elective	3
Minor Elective	3
Free Elective	6
	15

SEVENTH SEMESTER

Geography Elective	3
Minor Elective	3
Free Elective	8
	14

EIGHTH SEMESTER

Geography Elective	3
Minor Elective	6
Free Elective	5
	14

Earth Science Option in Geography

PAUL A. PRINCE, Advisor

FIRST SEMESTER

	Cr.
English I	4
Chem. I	4
Geology I	3
Gen. Ed. Soc. Sci. Elective	3
Military Science or Health	2
	16

SECOND SEMESTER

	Cr.
English II	4
Chem. II	4
Cultural Geography	3
Gen. Ed. Soc. Sci. Elective	3
Military Science or Phy. Ed. I	2-1
	15-16

THIRD SEMESTER

Foreign Language III	3
Literature I or II	2
Math. 152	5
Economic Geography	3
Intro. to Art or Music or Theater	3
	16

FOURTH SEMESTER

Foreign Language IV	3
Gen. Ed. Soc. Sci. Elective	3
Math. 157	5
Geology II	3
Physical Ed. II (women)	1
	15

FIFTH SEMESTER

General Ed. Soc. Sci. Elective	3
Geography Seminar	3
Physics I	4
Cartography	3
Astronomy I	3
	16

SIXTH SEMESTER

Physics II	4
Geography Anglo-Am.	3
Climatology	3
Physiography	4
Astronomy II	3
	17

SEVENTH SEMESTER

Meteorology	4
Biology I	4
Free Electives	8
	16

EIGHTH SEMESTER

Oceanography	4
Biology II	4
Free Elective	6
	14

Urban-Regional Planning and Administration Option in Geography

There is at present a large and unfilled need for students with a background in the Social Sciences and with a concentration in one or more of these sciences to enter the fields of Urban-Regional Planning and Administration. Essentially two types of personnel are desired: (1) the trained planner and administrator to direct and evaluate, and (2) the technician who is capable of carrying out individual research in relation to the overall pattern established by planners and administrators.

In response to these needs the Geography Department has established an inter-disciplinary option in Urban-Regional Planning and Administration so that students interested in this type of undergraduate program will be prepared to enter recognized graduate schools to prepare for positions as city managers, governmental administrators, and planners. Completion of the undergraduate curricula will qualify students for employment in subordinate positions in these fields.

The undergraduate inter-disciplinary program constitutes an introduction to the professional field of Urban-Regional Planning and Administration. It provides a basic understanding of planning and training desirable for entering the field of Urban-Regional Planning and Administration.

The program consists of 53 semester hours of general education, a 36 semester hour major in a geography plus 36 semester hours selected from five areas listed below.

In addition, students who elect the Planning-Administration option will be expected to devote two hours per week, for those semesters when they take the Urban/Regional Planning courses to practical problems in the county or borough offices. Students who complete two planning and administration courses are expected to take an apprenticeship. The apprenticeship will be during the summer session in some planning or administrative office within the state and the student will be compensated.

Urban/Regional Planning Option in Geography

ISADORE LENGLET and CHARLES E. WEBER, Advisors

FIRST SEMESTER

	Cr.
English I	4
Gen. Ed. Nat. Sci. Elective	4
Physical Geography	3
General Ed. Soc. Sci. Elective	3
Military Science or Health	2
	16

SECOND SEMESTER

	Cr.
English II	4
Nat. Sci. continued	4
Cultural Geography	3
Gen. Ed. Soc. Sci. Elective	3
Military Science or Phy. Ed.	2-1
	15-16

THIRD SEMESTER

Foreign Language III	3
Literature I or II	2
Math 101 or 152	3-5
Economic Geography	3
Intro. to Art or Music or Theater	3
Phy. Ed. II	1
	15-17

FOURTH SEMESTER

Foreign Language IV	3
Gen. Ed. Nat. Sci. Elective	3
Gen. Ed. Soc. Sci. Elective	3
Geology I	3
Geography Anglo-America	3
	15

FIFTH SEMESTER

Gen. Ed. Soc. Sci. Elective	3
Geography Seminar	3
Geography Elective	3
Group I Elective*	3
Climatology or Meteorology	3
	15

SIXTH SEMESTER

Cartography	3
Regional Geog. Elective	3
Group II Elective*	3
Group III Elective*	3
Group IV Elective*	3
	15

SEVENTH SEMESTER

Intro. to Urban/Regional Planning I	3
Group V Elective*	3
Group I Elective*	3
Group II Elective*	3
Group III Elective*	3
	15

EIGHTH SEMESTER

Intro. to Urban/Regional Planning II	3
Group IV Elective*	3
Group V Elective*	3
Geography Elective	3
Elective	6
	18

*Groups of Electives for Urban/Regional Planning Option in Geography

GROUP I

Econ 343 Economic Analysis	3
Econ 344 Public Finance	3
Econ 341 Industrial Relations	3

GROUP II

Geog 246 Physiography	4
Geog 354 Trade and Transp.	3
Geog 452 Conservation: Resource Use	3
Geog 462 Field Course in Geog.	3

GROUP III

Soc 334 Population Prob.	3
Soc 332 Racial-Cultural Minorities	3
Soc 333 Juvenile Delinquency	3
Soc 335 Social Stratification	3

GROUP IV

Bus 221 Introduction to Accounting	3
Bus 251 Intermediate Accounting	3
Math 362 Probability and Statistics	3
Math 366 Fortran	3
Art 211 Mech. Drawing and Ind. Design	3

GROUP V

PolS 354 Metropolitan Problems	3
PolS 356 State and Local Government	3
PolS 350 Public Administration	3
Contemporary Pol. Problems	3

At least one course must be elected from each group.

HISTORY DEPARTMENT

CLYDE C. GELBACH, Chairman

The program in history is designed to give both the major and minor student an opportunity to study in some depth the past story of man and his world. Not only the story of the United States, but also that of other peoples and other times is covered in the belief that such study, together with an understanding of the craft of the historian, is an essential for the future of mankind.

The history student will find that his program is excellent preparation for government service, for pre-law training, for broad business opportunities, for work in varied fields of journalism, for archival and manuscript positions, as well as training for creative writing areas including the writing of history. In addition, an excellent undergraduate scholarship record in history can lead to opportunities for graduate study in this and other fields.

Requirements for a major in history are twenty-seven hours including General Education courses. For a minor fifteen hours are required including General Education courses.

FIRST SEMESTER

	Cr.
Eng 101 English I	4
HPe 101 Health or	
MS 101 Military Science I	2
Laboratory Natural Science	4
Foreign Language	3
Gen. Ed. Soc. Sci. Elective	3
	16

SECOND SEMESTER

	Cr.
Eng 102 English II	4
HPe 102 Phys. Ed. I or	
MS 102 Military Science I	1-2
Laboratory Natural Science	4
Foreign Language	3
Gen. Ed. Soc. Sci. Elective	3
	15-16

THIRD SEMESTER

Math 101 Foundations of Math.	3
HPe Phys. Ed. II or (HPe 103)	
MS 203 Military Science II	1-2
Eng 201 Literature I or	
Eng 301 Literature II	2
Gen. Ed. Natural Sci. or	
Humanities Elective	3
Gen. Ed. Soc. Sci. Elective	6
	15-16

FOURTH SEMESTER

Gen. Ed. Soc. Sci. Elective	3
Art 101 Intro. to Art or	
Mus. 101 Intro. to Music or	
Eng 103 Intro. to Theater	3
Course in Major-Minor Fields	9
	15

FIFTH SEMESTER

Courses in Major-Minor Fields	
or free electives	15-18

SIXTH SEMESTER

Courses in Major-Minor Fields	
or free electives	15

SEVENTH SEMESTER

Courses in Major-Minor Fields	
or free electives	15

EIGHTH SEMESTER

Courses in Major-Minor Fields	
or free electives	15

LAW ENFORCEMENT DEPARTMENT

HARRY W. MORE, Chairman

The department offers men and women who seek a career in the law enforcement field a professional education program supported by a broad liberal arts education.

The program in Law Enforcement has a five-fold objective:

1. The education of students for employment and leadership in the expanding field of law enforcement.
2. The education of presently employed peace officers who recognize the need for raising their educational level.
3. The instruction of students who wish to acquire an understanding of the processes of law enforcement as a cultural part of their higher education.
4. The instruction of students who wish to prepare for graduate study and research in law enforcement.
5. A curriculum which provides an excellent foundation for students preparing for a career in law.

Nearly every level of government offers opportunities for professional careers in law enforcement. Students will find employment opportunities in more than fifty federal agencies including the Federal Bureau of Investigation, U.S. Secret Service, Bureau of Narcotics, Intelligence Division (I.R.S.), Inspection Service (I.R.S.), Alcohol Tobacco Tax Division (I.R.S.), State Department Security, Atomic Energy Commission, and military investigative branches.

Both men and women will find employment opportunities in parole and probation work for federal, state and local governments, institutional careers concerned with the custody and treatment of juveniles and adults at all levels of government. In addition, many police departments have specialized units dealing with juveniles, community relations, training and research. Criminalistic laboratories provide another career area and there are a wide variety of opportunities in traffic administration, investigative and security activities in the commercial and industrial fields.

Career opportunities are also available in research and teaching at the college and university level and in research divisions of agencies in the field of administration of justice.

Law Enforcement majors are required to complete a total of thirty hours in the department. The student's career objectives will determine the courses which he will take.

Fifteen hours of course work are required for a minor in the department.

BACHELOR OF ARTS

FIRST SEMESTER

	Cr.
Eng 101 English I	4
Science	4
LawE 101 Administration of Justice	3
HPe 101 Health or	
MS 101 Military Science I	2
PolS 111 American Citizenship	3
	16

SECOND SEMESTER

	Cr.
Eng 102 English II	4
Science	4
LawE 102 Criminology	3
HPe 102 Physical Education or	
MS 102 Military Science I	1-2
Soc 151 Principles of Sociology	3
	15-16

THIRD SEMESTER

LawE 201 Police Administration I	3
Psy 201 General Psychology	3
Foreign Language	3
HPe 103 Physical Education II	1
Art 101 Introduction to Art or	
Mus 101 Introduction to Music or	
Eng 103 Introduction to Theater	3
Eng 201 Literature I	2
	15

FOURTH SEMESTER

LawE 202 Police Administration II	3
Foreign Language	3
Math 101 Foundations of Math.	3
Gen. Ed. Soc. Sci. Electives	6
	15

FIFTH SEMESTER

Soc 333 Juvenile Delinquency	3
Social Science Course	3
Law Enforcement Courses	6
Humanities or Natural Science Elective	3
	15

SIXTH SEMESTER

Social Science Courses	6
Law Enforcement Courses	6
Electives	4
	16

SEVENTH SEMESTER

Social Science Course	3
Law Enforcement Course	3
Electives	9
	15

EIGHTH SEMESTER

Social Science Course	3
Law Enforcement Courses	6
Electives	9
	16

POLITICAL SCIENCE DEPARTMENT

RICHARD F. HEIGES, Chairman

Political Science involves the study of political systems, power, public policy making, and related concepts. Although historically the discipline has centered on values and raises questions as to the nature of the ideal society, behaviorism in recent decades has emphasized the scientific method, empirical findings, and the development of a system of political theory. Political Science in modern society strives to assist public policy making and administration by integrating the older normative approach with the newer empirical methods.

Students majoring in Political Science find employment opportunities, usually through civil service examinations, in

federal, state, and local governments, and with private civic groups, interest groups, and political groups. Students who go on to graduate work find appointments at higher levels and in college teaching. The Political Science major is also especially suitable for the pre-law student. Students majoring in Political Science, as in any of the Social Sciences, furthermore, are in demand by employers in business and industry.

REQUIREMENTS FOR POLITICAL SCIENCE MAJOR AND MINOR

The Political Science Major consists of a minimum of twenty-seven semester hours in the discipline; the minor consists of fifteen hours.

In both the major and the minor, two courses are required: Pol S 111, American Citizenship and Pol S 120, Introduction to Political Science.

COURSE SEQUENCE—POLITICAL SCIENCE MAJOR

FIRST SEMESTER

	Cr.
Eng 101 English I	4
HPe 101 Health or	
MS 101 Military Science I	2
Laboratory Natural Science	4
Foreign Language	3
PolS 120 Introduction to Political Science	3
	16

SECOND SEMESTER

	Cr.
Eng 102 English II	4
HPe 102 Phys Ed or	
MS 102 Military Science I	1-2
Laboratory Natural Science	4
Foreign Language	3
PolS 111 American Citizenship	3
	15-16

THIRD SEMESTER

Math 101 Foundations of Math	3
HPe 103 Phys Ed II or MS	1
Literature I or II	2
Gen Ed Soc Sci Elective	6
Gen Ed Natural Sci or	
Humanities Elective	3
	14-15

FOURTH SEMESTER

Gen Ed Soc Sci Electives	6
Intro to Art, Music, Theater	3
Courses in Major-Minor Field	6
	15

FIFTH to EIGHTH SEMESTERS: 60 s.h. of courses in major and minor fields and free electives.

CENTER FOR INTERNATIONAL STUDIES

ROBERT MORRIS, Director

The Center for International Studies was established at Indiana University of Pennsylvania to meet the demand for college graduates qualified for international service. The Center offers a flexible program leading to a B.A. degree. The curriculum in International Studies is broad enough to prepare the student for any one of a great variety of international career opportunities; however, the courses offered permit the

student to specialize during his junior and senior years. Although the specialist is needed in international service, the successful specialist is one who has a very broad training at the undergraduate level.

Beyond the general education courses required of all students in the School of Liberal Arts at the University (which includes a foreign language requirement), the International Studies major must fulfill three curriculum requirements established by the Center:

I. He must complete two introductory courses in International Studies. (6 semester hours) PolS 357 International Relations and PolS 278 International Organization.

II. He must build an interdisciplinary elective sequence selected from at least three of the following groups. (9-18 semester hours)

A

Bus 101 Business Organization & Management
LawE 430 Comparative Study of Justice
Psy 452 Social Psychology
Psy 114 Industrial Psychology

B

Econ 122 Principles of Economics II
Econ 340 Economic Development
Econ 345 International Economics
Econ 350 Comparative Economic Systems

C

Geog 149 Economic Geography
Geog 453 Political Geography
Geog 454 World Problems In Geography

D

Hist 363 Diplomatic History of U.S.
Hist 374 History of the 20th Century World

E

PolS 350 Public Administration
PolS 355 Comparative Government
PolS 379 Developing Nations
PolS 360 American Foreign Policy

F

Soc 334 Population Problems
Soc 357 World Cultures
Anth 211 Cultural Anthropology
Anth 312 World Ethnography

III. He must complete a specialization in the economic and political systems of another culture that includes a study of the language, literature, history, and geogra-

phy of a specific region of the world. (12-18 semester hours) Currently three specializations are offered: Soviet Studies, The Far East, and Latin America. However, students interested in Africa, the Middle or Near East may elect interdisciplinary courses focusing on the developing nations. It is also possible to build a program centering on the Atlantic community of nations.

Specialization must include work in at least three disciplines. The student is expected to have completed the intermediate language sequence of the appropriate language in the general education requirements so that no credit towards specialization is counted for language courses numbered below the 300 level.

A. **Soviet Studies**

Rus 351-352 Advanced Russian Language
Rus 055-056 Advanced Oral Practice
Rus 361-362 Development of Russian Culture and Literature I and II
Hist 354 History of Russia
Geog 357 Geography of U.S.S.R.
PolS 380 Soviet Politics & Government
PolS 385 Political Systems: Central & Eastern Europe
Hist 355 History of Soviet Russia

B. **The Far East**

Hist 375 History of the Far East
PolS 379 Developing Nations
PolS 383 Political Systems: Asia
Geog 361 Geography of the Far East
Geog 362 Geography of Asia

C. **Latin America**

Sp 351-352 Advanced Spanish Language
Sp 055-056 Advanced Oral Practice
Sp 361-362 Development of Spanish Culture and Literature I and II
Hist 350 Latin America: Colonial Period
Hist 352 Latin America: National Period
Geog 371 Geography of South America
Geog 372 Geography of Middle America
PolS 379 Developing Nations
PolS 381 Political Systems: Latin America

A minor in International Studies consists of meeting the requirements listed under I and II above. The student's major is substituted for his specialization (III). The curriculum of the Center for International Studies is flexible enough so that the student can plan a program to match his interests. Students enrolled at the Center are preparing for careers in Foreign Service or for work with other branches of the government. Corporations and religious and philanthropic organizations are also seeking college graduates qualified for international service. In addition, American colleges and universities need professors qualified to teach in international affairs programs. The Center for International Studies at Indiana University prepares students for these opportunities.

PSYCHOLOGY

STANLEY W. LORE, Chairman

The Psychology Major is designed to provide the necessary background for graduate work in psychology. It may also be a useful preparation for such related fields as personnel work, advertising, medicine, law, theology, social work, market research and rehabilitation counseling. The student who desires a general cultural background in the Liberal Arts with special emphasis on the understanding of human behavior will find this a desirable major.

Psychology majors will be required to take General Psychology and Probability and Statistics as part of the General Education program. An additional 30 semester hours in Psychology will be required for graduation, of which 12 semester hours are prescribed. Any deviation from these requirements will require departmental approval.

The student's objectives will determine his selection of electives in Psychology and he will be advised accordingly. Those who plan to pursue graduate work in Psychology should expect to earn an overall average of B or better in order to insure admittance to a graduate school.

Students who desire a minor in Psychology will be required to have a minimum of 18 semester hours, including General Psychology. In addition, minors will be required to have Developmental Psychology and Mental Hygiene.

Required Courses

Psy 201 General Psychology (General Education requirement for Majors; required for Minors)
Psy 354 Developmental Psychology (Required for Majors and Minors)
Psy 452 Social Psychology (Required for Majors)
Psy 352 Mental Hygiene (Required for Minors)
or
Psy 461 Abnormal Psychology (Majors are required to have at least one of these)

FIRST SEMESTER	Cr.	SECOND SEMESTER	Cr.
Eng 101 English I	4	Eng 201 English II	4
Biol 103 Gen. Biol. I or		Biol 104 General Biol. II or	
Sci 105 Phys. Sci. I	4	Sci 106 Phys. Sci. II	4
HPe 101 Health or		Psy 201 Gen. Psych.	3
MS 101 Military Sci. I	2	Foreign Language	3
Foreign Language	3	HPe 102 Phys. Ed. I or	
Math 101 Foundations of Math.	3	MS 102 Military Sci. I	1 2
	16		15-16

THIRD SEMESTER

Math 362 Probability and Statistics	3
Intro to Music, Art or Theater	3
Phil 120 Philosophy (or other Humanities or Natural Sci. elect.)	3
Gen. Ed. Soc. Sci. elect.	3
Psychology	3
HPe 203 Phys. Ed. II (women)	1
	15-16

FOURTH SEMESTER

Eng 201 Lit. I or Eng 301 Lit. II	3
Gen. Ed. Soc. Sci. elective	6
Courses in Psy. and Minor	9
	17

FIFTH SEMESTER

Gen. Ed. Soc. Sci. Elect.	3
Courses in Major-Minor Fields or free electives	12
	15

SIXTH, SEVENTH AND EIGHTH SEMESTERS

Courses in Major-Minor Fields or free electives 15

(Total credits required for graduation—124)

SOCIOLOGY-ANTHROPOLOGY DEPARTMENT

RALPH R. IRELAND, Chairman

The Sociology-Anthropology Department provides an opportunity for studies in two closely related disciplines. Although a student may elect to concentrate his studies in one area more than another, studies in both disciplines are recommended. Sociology and Anthropology are both concerned with man's social and cultural setting and the nature of his relationships with his fellow men. Sociology focuses primarily on studies of our own society whereas Anthropology is mainly concerned with non-Western cultures.

Sociology-Anthropology training can be preparatory for a variety of vocations. Teaching in secondary schools or in colleges and universities are vocations of interest to many students. Social work is an area of increasing opportunities. Anthropologists find employment opportunities primarily in higher education, museum work, and in civil service positions. Students planning future studies in theology, law, personnel management or other human relations occupations will find that undergraduate training in Sociology and Anthropology is eminently appropriate.

Departmental Requirements

A major in Sociology-Anthropology requires a total of twenty-seven hours of course work including General Education courses.

Fifteen hours of course work are required for a minor in the department including General Education courses.

Both majors and minors must elect their courses from those listed below. All students must include the required courses.

REQUIRED COURSES

Soc 151 Principles of Sociology 3
Soc 331 Contemporary Social Problems 3
Anth 110 Introduction to Anthropology 3

ELECTIVE COURSES

Soc 332 Racial and Cultural Minorities 3
Soc 333 Juvenile Delinquency 3
Soc 334 Population Problems 3
Soc 335 Social Stratifications 3
Soc 336 Sociology of the Family 3
Soc 337 World Cultures 3
Soc 338 Introduction to Social Work 3
Soc 339 American Communities 3
Anth 211 Cultural Anthropology 3
Anth 312 World Ethnography 3
Anth 313 Prehistory 3
Anth 314 Ethnology of North American Indians 3

GENERAL PROGRAM — LIBERAL ARTS

Sociology-Anthropology Department

FIRST SEMESTER

	Cr.
Eng 101 English I	4
HPe 101 Health or	
MS 101 Military Science 1	2
Laboratory Natural Science	4
Foreign Language	3
Soc 151 Prin. of Sociology or	
Anth 101 Intro to Anthropology	3
	16

SECOND SEMESTER

	Cr.
Eng 102 English II	4
HPe 102 Phys. Ed. I or	
MS 102 Military Science 1	1-2
Laboratory Natural Science	4
Foreign Language	3
Soc 151 Prin. of Sociology or	
Anth 101 Intro. to Anthropology	3
	15-16

THIRD SEMESTER

Math 101 Foundations of Math	3
HPe 103 Phys. Ed. II (women only)	1
Eng 201 or 301 Literature I or II	2
Soc 331 Contemp. Soc. Prob.	3
Gen. Ed. Soc. Sci. Elective	3
Gen. Ed. Natural Sci. or	
Humanities Elective	3
	14-15

FOURTH SEMESTER

Gen. Ed. Soc. Sci. Elective	3
Intro to Art, Music, or Theater	3
Courses in Major-Minor Field	9
	15

FIFTH SEMESTER

Courses in Major-Minor Field	
or free electives	15

SIXTH SEMESTER

Courses in Major-Minor Field	
or free electives	15

SEVENTH SEMESTER

Courses in Major-Minor Field	
or free electives	15

EIGHTH SEMESTER

Courses in Major-Minor Field	
or free electives	15

*Sociology-Anthropology majors must plan their major-minor program in consultation with their adviser.

THE SCHOOL OF BUSINESS

ALBERT E. DRUMHELLER, Dean

The establishment of a School of Business was authorized by the Board of Trustees of the University in May, 1966. In doing so, it was indicated that the school should consist of two departments.

The Department of Business Education, which has been one of Indiana's areas of specialization for some fifty years, represents one of the departments. This area of education is designed to prepare teachers for the secondary school. The second and newly instituted department is designated as Business Management. The primary purpose of this area of study is preparation for purposeful and successful activity in the world of business.

General Education. The credit requirements in General Education are the same in the School of Business as they are in all other areas of the University. Slight variations in specific courses needed to meet the General Education requirements exist in the two departments of the School.

Areas of Concentration. Those persons enrolled in BUSINESS EDUCATION have a choice of four areas of specialization. Accounting, secretarial, retailing and distributive education represent the possibilities. It is a requirement of the department, that all persons enrolled choose two of the fields according to their interests and desires, in order to meet the department's standard for graduation. All State requirements for certification are more than adequately met in Indiana's curriculum. Additional hours beyond the State's requirement enrich the student's preparation for teaching in their chosen fields. Student Teaching under local supervision provided at the centers where this experience is gained, combined with supervision from the college during this stage of training provides a fine conclusion to the preparation for teaching. It is an experience which brings together in a useful form all of the trainees academic preparation.

BUSINESS MANAGEMENT consists of a curriculum that is common to all those enrolled during the first two years of the program. Beginning with the Junior year a choice is made for the purpose of concentrating in either accounting, general management and office management. In each of these areas provision has been made for a generous election of a wide variety of courses in business, economics and computer science for business. These electives are designed to enrich the student's understanding of the world of business. Not only is it possible to concentrate in a particular field, it is also possible to add a generous training in automated data processing. The

computer center on our campus is a rapidly developing area with modern equipment available for training in this important field of modern business.

BUSINESS EDUCATION DEPARTMENT

JAMES K. STONER, Chairman

The curriculum in this department is designed to prepare students for a professional teaching career in business. Students may pursue the work of the entire curriculum or they may elect to pursue work according to their aptitudes as follows:

1. The Complete Program leads to certification in all three fields, thus affording certification in all of the high school business subjects. Those who possess aptitudes that indicate success in stenographic, accounting, and retailing work may, if they wish, pursue this complete program.

2. A Combination Program combines either the Stenographic and Accounting, the Stenographic and Retailing, or the Accounting and Retailing Fields. All students planning to enter this Department should plan for graduation in several of the three possibilities under this combination arrangement. School administrators who employ our graduates believe that a combination program is necessary for breadth of certification when teaching in the public schools of the Commonwealth.

3. The Stenographic Field includes all the courses of the curriculum listed under that heading. Elective courses may be chosen from any other department of the University.

4. The Accounting Field includes all of the courses of the curriculum listed under that heading. Elective courses may be chosen from any other department of the University.

5. The Retailing Field included all of the courses of the curriculum listed under that heading. Elective courses may be chosen from any other department of the University.

Practical Experience Requirements. Before graduation, each student will be required to have completed the equivalent of six months of store practice, secretarial practice, bookkeeping practice, clerical practice, or a combination of these or other business contacts, acquired at places and under conditions approved by the chairman of this department. This experience preferably should be in the field or fields in which the student is contemplating certification. Much of this experience can be acquired during the summer vacations,

DISTRIBUTIVE EDUCATION DEPARTMENT

JAMES K. STONER, Teacher-Educator

The curriculum in this department is designed to prepare students for a professional teaching career in the distributive occupations. Students following this program will be graduated as Teacher-Coordinators of Distributive Education and will be also certified to teach certain courses in Business Education.

Teaching in the field of Distributive Education combines the personal satisfaction of teaching with the enjoyment of public relations work in the distribution area of business—retailing, wholesaling, and service enterprises. If you like the prestige of teaching, along with the plus values of working with business leaders and young people, you will find this a challenging and rewarding career. Distributive Education presents a promising future for persons in the teaching profession. With the recognition of the importance of distribution to our National economy, this vocational field of teaching is expanding rapidly.

Students enrolled in this department are encouraged to combine this area of concentration with the Stenographic or the Accounting curriculum in the Business Education Department.

Curriculum in Business and Distributive Education - School of Business

FIRST SEMESTER	Sem. Hrs.	SECOND SEMESTER	Sem. Hrs.
MS 101 Military Science I or	2	MS 102 Military Science I or	2
HPe 101 Health	2	HPe 102 Physical Education I	1
Eng 101 English I	4	Eng 102 English II	4
Sci 103 General Biology I or		Sci 104 General Biology II or	
Sci 105 Physical Science I	4	Sci 106 Physical Science II	4
Art 101 Introduction to Art or		Geo 101 World Geography	3
Mus 101 Introduction to Music or		BE 111 Foundations of Math (Bus.)	3
Eng 103 Introduction to Theater	3	Bus 132 Intermediate Typing	2
Bus 101 Business Organization & Mgnt.	3		
Bus 131 Principles of Typing (exemption by exam)	2		

THIRD SEMESTER

	Combined Seq.	Stenog. Seq.	Acct'g. Seq.	Retail Seq.	DE Seq.
HPE 203 Physical Education II	2—1	2—1	2—1	2—1	2—1
BUS 221 Introduction to Accounting	5—3	5—3	5—3	5—3	5—3
BE 212 Business Math II	3—3	3—3	3—3	3—3	3—3
BUS 261 Shorthand Theory	5—3	5—3	—	—	—
PSY 201 General Psychology	3—3	3—3	3—3	3—3	3—3
ENG 201 Literature I *or*					
ENG 301 Literature II	2—2	2—2	2—2	2—2	2—2
BUS 271 Advanced Typewriting	5—2	5—2	5—2	5—2	5—2
BUS 233 Marketing	3—3	—	—	—	3—3

FOURTH SEMESTER

BUS 235 Business Law I	3—3	3—3	3—3	3—3	3—3
BUS 251 Intermediate Accounting	5—3	5—3	5—3	5—3	5—3
BUS 262 Shorthand Dictation	5—3	5—3	—	—	—
PSY 302 Educational Psychology	3—3	3—3	3—3	3—3	3—3
HIST 102 History of Civilization II	3—3	3—3	3—3	3—3	3—3
ECON 121 Principles of Economics I	3—3	3—3	3—3	3—3	3—3
BUS 332 Retail Management	3—3	—	—	—	3—3

FIFTH SEMESTER

BUS 321 Business Communication	3—3	3—3	—	3—3	3—3
BE 311 Methods of Teaching Bus. Cra.	3—3	3—3	3—3	3—3	—
BUS 336 Business Law II	3—3	3—3	3—3	3—3	3—3
BUS 331 Sales and Retailing	3—3	3—3	3—3	3—3	—
BUS 352 Corporate Accounting	3—3	—	3—3	—	—
BUS 363 Transcription	5—3	5—3	—	—	—
BUS 335 Office Machines	5—2	—	5—2	5—2	—
ECON 122 Principles of Economics II	3—3	3—3	3—3	3—3	3—3
BUS 333 Principles of Selling	3—3	—	—	—	3—3

SIXTH SEMESTER

BUS 321 Business Communications	3—3	—	3—3	—	—
BE 312 Eval. Tech. in Bus. Courses	3—2	3—2	3—2	3—2	—
BUS 335 Office Machines	5—2	5—2	—	—	5—2
BUS 353 Cost Accounting	3—3	—	3—3	—	—
BUS 339 Business Data Processing	3—3	3—3	3—3	3—3	3—3
BUS 332 Retail Management	3—3	—	—	3—3	—
BUS 364 Secretarial Office Practice	5—3	5—3	—	—	—
LRes 301 Audio-Visual Education	3—2	3—2	3—2	3—2	3—2
BUS 454 Federal Taxes	3—3	—	3—3	—	—
ED 302 History & Philosophy of Am. Ed.	3—3	3—3	3—3	3—3	3—3
DE 310 Principles of DE	3—3	—	—	—	3—3
*DE 434 Supvd. Work Exp. & Seminar in DE	6—6	—	—	—	6—6

*Summer School

SEVENTH SEMESTER

HIST 104 History of U. S. & Pa. II	3—3	3—3	3—3	3—3	3—3
BUS 454 Federal Taxes	3—3	—	3—3	—	—
PHIL 120 Introduction to Philosophy *or*					
PHIL 221 Logic *or*					
PHIL 222 Ethics	3—3	3—3	3—3	3—3	3—3
BE 433 Retail Practice	6—6	—	—	6—6	—
POLS 111 American Citizenship	3—3	3—3	3—3	3—3	3—3
BUS 455 Auditing (Elective)	3—3	3—3	3—3	3—3	—
BE 342 Consumer Economics (Elective)	3—3	3—3	3—3	3—3	3—3
DE 313 Methods of Tech. Courses in DE	3—3	—	—	—	3—3

EIGHTH SEMESTER

ED 421 Student Teaching	30—12	30—12	30—12	30—12	30—12
ED 422 Professional Practicum	2—2	2—2	2—2	2—2	2—2

BUSINESS MANAGEMENT DEPARTMENT

CHARLES L. COOPER, Chairman

The training offered by the Business Management Department is intended to provide a broad basic liberal background in the behavorial sciences; to give a keen perception to the social-economic world in which one is to live and work; to provide the foundation of general professional education for personally fruitful and socially useful careers in the varied fields of business and other types of institutions; and to furnish the opportunity to obtain the specialized knowledge and skills essential to future occupational growth and advancement for students preparing for responsible technical, supervisory, and executive positions. Students may pursue work according to their interests and aptitudes, as follows:

1. The ACCOUNTING PROGRAM includes all the courses of the curriculum listed under that heading. Six credits of elective courses must be in the area of Economics and the remaining elective courses may be chosen in any area of business, areas related to business, or approved areas of the behavorial sciences. To major in accounting, a student must maintain a "B" average in the first nine credit hours of accounting.

2. The OFFICE MANAGEMENT PROGRAM includes all the courses of the curriculum listed under that heading. Elective courses may be chosen in any area of business, areas related to business, or approved areas of the behavorial sciences.

3. The GENERAL BUSINESS PROGRAM includes all the courses of the curriculum listed under that heading plus nine credits of elective in other Business Management courses and six credits of electives in the area of Economics. The remaining elective courses may be chosen in any area of business, areas related to business, or approved areas of the behavorial sciences.

Analysis of Graduation Requirements, 124 credit hours

General Education requirements: not less than 42% of the credits necessary for graduation.

Business "core" requirements: not less than 30% of the credits required for graduation.

Specialized area requirements: not more than 17% of the credits required for graduation beyond the introductory provisions of the business "core."

Elective area requirements: 11 to 14% of the credits required for graduation.

BUSINESS MANAGEMENT PROGRAM

FIRST SEMESTER

	Hours Class Sem.
Eng 101 English I	4-4
Biol 103 General Biology I or	
Sci 105 Physical Science I	5-4
Art 101 Introduction to Art or	
Mus 101 Introduction to Music	3-3
Geog 101 World Geography	3-3
MS 101 Military Science I or	3-2
HPe 101 Health	2-2

SECOND SEMESTER

	Hours Class Sem.
Eng 102 English II	4-4
Biol 104 General Biology II or	
Sci 106 Physical Science II	5-4
BM 111 Foundations of Math (Mgt)	3-3
Bus 101 Business Organization & Mgt.	3-3
MS 102 Military Science I or	3-2
HPe 102 Physical Education I	2-1

THIRD SEMESTER

Econ 121 Principles of Economics I	3-3
BM 201 Personnel Management	3-3
Math 362 Probability & Statistics	3-3
Bus 221 Introduction to Accounting	5-3
Psy 201 General Psychology	3-3
HPe 203 Physical Education II	2-1

FOURTH SEMESTER

Econ 122 Principles of Economics II	3-3
Hist 104 History of U. S. & Pa. II	3-3
Bus 251 Intermediate Accounting	5-3
Bus 235 Business Law I	3-3
BM 215 Business Statistics	3-3

FIFTH SEMESTER

	Accounting Seq.	Office Management Seq.	General Business Seq.
Bus 233 Marketing	3—3	3—3	3—3
Bus 352 Corporate Accounting	3—3	—	3—3
Bus 336 Business Law II	3—3	3—3	3—3
Econ 325 Money, Banking & Monetary Policy	3—3	3—3	3—3
Bus 131 Principles of Typewriting or by examination	—	5—0	—
Bus 261 Shorthand Theory	—	5—3	—
Electives	3—3	3—3	3—3

SIXTH SEMESTER

Eng 301 Literature II	2—2	2—2	2—2
BM 241 Finance	3—3	—	3—3
Bus 353 Cost Accounting	3—3	—	—
Bus 339 Business Data Processing	3—3	3—3	3—3
Bus 132 Intermediate Typewriting	—	5—2	—
Bus 262 Shorthand Dictation	—	5—3	—
Bus 335 Office Machines	—	5—2	—
Electives	6—6	3—3	9—9

SEVENTH SEMESTER

Anth 110 Introduction to Anthropology or Soc 151 Introduction to Sociology	3—3	3—3	3—3
BM 451 Advanced Principles of Acctg.	3—3	—	—
Econ 330 Industrial and Labor Relations	3—3	3—3	3—3
Bus 321 Business Communications	3—3	3—3	3—3
Bus 271 Advanced Typewriting	—	5—2	—
Bus 363 Transcription	—	5—3	—
Electives	3—3	3—3	6—6

EIGHTH SEMESTER

PolS 111 American Citizenship	3—3	3—3	3—3
Bus 454 Federal Taxes	3—3	—	3—3
Bus 455 Auditing	3—3	—	—
Bus 364 Secretarial Office Practice	—	5—3	—
BM 470 Office Management	—	3—3	—
Electives	6—6	6—6	9—9

THE SCHOOL OF CONTINUING AND NON-RESIDENT EDUCATION

ARTHUR F. NICHOLSON, Dean

The School of Continuing and Non-Resident Education operates the University's two Off-Campus Centers at Punxsutawney and Kittanning. In cooperation with the other Schools of the University, the School of Continuing and Non-Resident Education also holds Saturday Campus Classes and in conjunction with the School of Arts and Sciences schedules undergraduate Evening School Classes for credit.

As an additional phase of Continuing Education, the School runs a fall and spring series in the adult education field entitled the Community-University Studies Series. These courses are for non-credit in various fields of adult education. The courses are established to fill demands and needs of adults in the area served by the University.

The School of Continuing and Non-Resident Education also has jurisdiction over the cultural affairs of the University and conferences held at the University.

OFF-CAMPUS CENTERS OF INDIANA UNIVERSITY OF PENNSYLVANIA

Indiana University of Pennsylvania now has two off-campus centers operating in the Punxsutawney and Kittanning communities, both about 28 miles from the main campus in Indiana, Pennsylvania.

The first center was established in September, 1962, at Punxsutawney in an attractively renovated building, formerly used by the Punxsutawney School district in the west side of that community at the corner of Winslow and Center Streets. Enrollment at the Punxsutawney Center for 1968-9 will be 325 full and part-time students.

In September, 1963, Indiana University of Pennsylvania established a second center known as the Armstrong County Center located in the former offices of the West Penn Power Company at the corner of Rebecca and McKean Streets in Kittanning. The structure has been neatly renovated into a college instructional building which in 1968-9 will provide for 525 full and part-time students.

Both centers now have resident faculties who are regular university faculty members working full time at the centers. Other faculty from the main campus travel to the centers to provide adequate instructional staff to meet curriculum needs of students for their first two years of college in general edu-

cation subjects for areas of concentration in a liberal arts school or majors in fields in a school of education.

In most cases, the centers provide two full years of college work transferable to the main campus of Indiana University of Pennsylvania or to other accredited colleges. The chairmen of Indiana University of Pennsylvania centers advise with students as to their instructional programs and the best time for transfer to main campus for those in highly specialized areas. The centers and Indiana University of Pennsylvania maintain a close liaison through the Dean of the School of Continuing Education who regularly visits both centers and maintains an office in Indiana.

For the most part students at the centers are persons living in the immediate county areas of the centers. Some students from distant points who cannot find accommodations on the main campus of Indiana University of Pennsylvania are also given the privilege of attending the centers and later transfering to the main campus. Regular procedures for transfer have been established.

Fry Hall I and Fry Hall II at Punxsutawney, Boyer Hall and Trust Hall at Armstrong County Center in Kittanning have been established as dormitories for students needing residence at these respective centers.

Each center has its own library facilities supervised by a professional librarian from the main campus. In addition the centers may draw upon University library facilities and the services of the University in many other areas.

Control of the centers is directly vested with the Indiana University of Pennsylvania administration and Board of Trustees. Advisory Boards from both center areas serve to establish local needs and advise with main university authorities.

Both centers have their own evolving programs of lecture series, social affairs, and other matters vital to a complete college in addition to having access to the resources of Indiana University of Pennsylvania.

Prospective college students from the areas served by the centers and a limited number of others who can not be accommodated on the main campus may apply for admission by requesting application papers from the Registrar's Office, Indiana University of Pennsylvania, or from the director of either the Punxsutawney or Armstrong County Centers.

The same standards and requirements for admission which apply to students at the main campus also apply to both university centers.

For more detailed information on the programs at Indiana University of Pennsylvania Centers, one should write to the Director, Punxsutawney Center, Indiana University of Pennsylvania, Punxsutawney, Pa., or the Director, Armstrong County Center, Indiana University of Pennsylvania, Kittanning, Pa., and request an Off-Campus Centers bulletin. This publication explains the steps necessary for admissions, outlines programs of study, and gives other general details of the two year University Centers.

SATURDAY CAMPUS CLASSES

Saturday Campus Classes are held on the campus on Saturdays (generally between 9:00 A. M. and 1:00 P. M.). Courses are arranged according to the demand for them as indicated by teachers who are interested. This is not extension work. It is credited as "residence" work. Classes are scheduled to enable students to earn as much as six semester hours credit each semester. Persons interested should write for a schedule of courses to the Dean of the School of Continuing Education, Indiana University of Pennsylvania, Indiana, Pa., 15701.

The basic fee for Saturday Campus Classes is $14.00 per semester hour of credit for students who are residents of Pennsylvania with a minimum basic fee of $42.00, and $20.00 per semester hour of credit for students other than residents of Pennsylvania with a minimum basic fee of $60.00. Not more than six semester hours credit may be earned in one semester by one who is doing full time teaching or other employment.

THE CULTURAL LIFE SERIES

The Artists-Lecture Series sponsored by the Office of Cultural Affairs in the School of Continuing Education and the Student Co-operative Association brings to the Indiana campus outstanding speakers on various contemporary affairs and artists in the fields of music, dance, drama, and other arts.

During the past year the Cultural Affairs Advisory Council presented such outstanding speakers as Harrison Salisbury, Dick Gregory, Frank Manuel, Paul B. Weisz, Myra Roper, Leon Volkov, Emlyn Williams, Harold Clurman, and Jules Feiffer.

In addition, famous artist groups were presented including a Broadway cast in "Stop the World I Want to Get Off", John Houseman's "The Honourable Estate", Nina Simone, Berlin Mozart Choir, Vincent Persichetti conducting Third Annual Contemporary Music Festival, Warsaw Chamber Orchestra, American Ballet Theater National Players in "Much Ado About Nothing" and "The Lute Song", and the Amsterdam University Quartet.

THE SCHOOL OF EDUCATION

GEORGE A. W. STOUFFER, JR., Dean

The School of Education is designed to enable the student to pursue a program of study in general education, a program of major study within an academic or special field, and a program of professional education that will qualify the student for certification to teach in the public schools of the Commonwealth of Pennsylvania. Students who meet all of the requirements for graduation from this school will be granted the Provisional College Certificate to teach the subjects within their respective fields of major study.

General Education

All students in the School of Education are required to take the same program of 55 semester hours in general education as is required of all students in the School of Liberal Arts. This program in general education may be found on page .

PROFESSIONAL EDUCATION AND CERTIFICATION

Certification standards, established by the Department of Public Instruction and the State Council on Education, require work in the field of professional education. In accordance with these standards all students in the School of Education are required to take the following courses in professional education—History and Philosophy of American Education, Educational Psychology, Evaluative Methods (except in certain special departments), Audio-Visual Education and one or more methods courses, INVOLVING LABORATORY EXPERIENCES, within their major field of academic study or specialization. In addition all students in this school are required to do a semester of student teaching under the supervision of a cooperating teacher and a university superviser.

Laboratory experiences, designed to clarify theoretical concepts of learners and learning processes, are provided through direct experiences in classrooms or observation by television.

Student teaching is a full-time, full semester experience in Keith School or in a public school known as a student teaching center. Student teachers under careful supervision perform the many role functions of teachers and develop attitudes, understandings, skills, and other competencies essential for success in the profession. Teachers wishing to extend their area of certification or replace the State Standard Limited Certificate may be permitted to take student teaching during the summer session.

Professional Practicum including School Law is taken as a part of the student teaching experience. This course, organized in two parts, is scheduled concurrently with student teaching. One part is designed to help students gain an overview and understanding of the total school program and a knowledge of Pennsylvania school laws governing education. The second part is intended to help students gain breadth and depth in understanding the role of the classroom teacher in a particular area of specialization.

The professional education requirement amounts to approximately 27 semester hours within the 124 semester hours required for graduation.

The College Provisional Certificate is issued to the beginning teacher upon graduation from this school. The Provisional College Certificate can be made permanent upon the completion of from three to six years of successful teaching during which period the teacher must have taken twenty-four semester hours of additional college work. These credits may be earned at either the undergraduate or graduate level.

KEITH SCHOOL. John A. H. Keith School provides for a program of instruction from kindergarten through sixth grade, thus affording opportunities for professional laboratory experiences and research activities. Professional laboratory experiences, such as observation, participation, and student teaching, may be planned and scheduled with the Director of Professional Laboratory Experiences. Research activities may be arranged through the office of the Director of Keith School.

Fields of Major Study

The School of Education offers programs of major study leading to certification in the following academic fields—

Biology
Chemistry
Earth Science
Earth and Space Science
English
French
General Science
Geography
German
History
Latin
Mathematics
Physics
Political Science
Russian
Social Science
Spanish

The School of Education offers programs of major study leading to certification in the following special fields—

Dental Hygiene
Education for Safe Living
Elementary
Public School Nursing
Rehabilitation Education
Speech and Hearing Correction
Special Education for the Mentally Retarded

The required courses in the foregoing fields and the sequence in which they are to be taken are indicated on the following pages.

BIOLOGY DEPARTMENT

DONALD E. HOFFMASTER, Chairman

Requirements for Biology Majors.

The major in Biology consists of 25 semester hours credit. In addition supporting courses in Chemistry, Mathematics, and Physics are required.

FIRST SEMESTER

	Sem. Hrs.
General Biology I	4
General Chemistry I	4
English I	4
Intro to Art or Intro to Music or Intro to Theater	3
Military Science or Health	2
	17

SECOND SEMESTER

	Sem. Hrs.
General Biology II	4
General Chemistry II	4
English II	4
General Elective	3
Military Science or Health	2
	17

THIRD SEMESTER

Foreign Language or General Elective	3
Organic Chemistry I	4
General Psychology	3
Biology Elective	3
Soc. Sci. Elective	3
	16

FOURTH SEMESTER

Foreign Language or General Elective	3
Algebra & Trigonometry	5
Genetics	3
Lit 1 or II	2
Biology Elective	3
	16

FIFTH SEMESTER

Physics I	4
History of U.S. & Pa. II	3
Biochemistry	3
Ecology	3
Audio Visual Education	2
	15

SIXTH SEMESTER

Physics II	4
Educational Psychology	3
Tch. Sci. in Sec. Schools	3
Social Science Elective	3
Evaluative Methods	2
	15

SEVENTH SEMESTER

General Physiology	3
Biology Electives	4
Soc. Sci. Elective	3
History & Philosophy of Ed.	3
Biology Seminar	1-3
	14-16

EIGHTH SEMESTER

Student Teaching	12
Prof. Practicum	2
	14

CHEMISTRY DEPARTMENT

PAUL R. WUNZ, Chairman

Requirements for B. S. in Education

FIRST SEMESTER

	Cr.
Chem 111 Gen. Chem I	4
Eng 101 English I	4
Math 152 Alg. & Trig.	5
MS 101 Military Science I or	
HPe 101 Health	2
	15

SECOND SEMESTER

	Cr.
Chem 112 Gen. Chem. II	4
Eng 101 English II	4
Math 157 Anal. Geom. & Calc. I	4
MS 102 Military Science I or	
HPe Health	2
Art 101 Intro to Art or	
Mus 101 Intro to Music or	
Intro to Theater	3
	17

THIRD SEMESTER

Chem 231 Org. Chem. I	4
Math 257 Calc. II	4
Phy 111 Physics I	4
Psy 201 Gen. Psy.	3
Eng 201 Lit. I or	
Eng 301 Lit. II	2
	17

FOURTH SEMESTER

Chem 232 Org. Chem. II	4
Math 357 Calc. III	4
Phy 112 Physics II	4
LRes 301 Audio Vis. Ed.	2
Humanities Elective	3
	17

FIFTH SEMESTER

Chem 321 Quant. Anal.	4
Chem. 341 Phy. Chem. I	4
Psy 302 Ed. Psy.	3
Ed 302 Hist. & Phil. Amer. Ed.	3
Humanities Elective	3
	17

SIXTH SEMESTER

Chem 322 Inst. Anal.	4
Chem 342 Phy. Chem. II	4
Ed 451 Teaching Sci. in Secondary School	3
Ed 305 Evaluative Methods	2
Humanities Elective	3
	16

SEVENTH SEMESTER

Soc. Sci. 302 Hist. U.S. & Pa.	3
Soc. Sci. Electives	9
Science Elective	3-4
	15-16

EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Prof. Pract. & School Law	2
	14

DENTAL HYGIENIST

GEORGE A. W. STOUFFER, JR., Director

The Board of Presidents of the State Colleges approved on November 17, 1950, a curriculum for dental hygienists leading to the degree of bachelor of science in education. The requirements shown below must be met.

1. The satisfactory completion of an accredited two-year curriculum for the preparation of dental hygienists approved by the State Dental Council and Examining Board.
2. The licensing of the student by the proper state authorities.
3. The satisfactory completion in addition thereto of 64 semester hours of professional and general education courses distributed as follows:

General Education		36
Eng 101 and 102 English I and II	8	
Eng 201 and 301 Literature I and II	4	
Fine Arts	3	
Art 101 Introduction to Art or		
Mus 101 Introduction to Music		
Geography	3	
Geog 112 Geography of United States and Pa.		
Social Studies	6	
Hist 101 and 102 History of Civilization I and II		
PolS 111 American Citizenship		
Econ 121 Principles of Economics		
Hist 104 History of U.S. and Pa. II		
Soc 131 Principles of Sociology		
Education		14
Ed 302 Hist. & Phil. of Am. Ed.	3	
Psy 201 General Psychology	3	
Psy 302 Educational Psychology	3	
Psy 352 Mental Hygiene	3	
LRes 301 Audio-Visual Education	2	
Electives		14
Total		64

In each category above, credit will be given for equivalent courses pursued in the two-year dental hygiene curriculum. In such cases students will be permitted to increase their electives by the number of semester hours so credited.

Electives may be chosen with the approval of the dean of instruction from any field or curriculum offered at the college in which the student is enrolled.

In the case of dental hygienists who have had less than two years of special training on the basis of which they have been licensed by the State Dental Council and Examining Board such persons will pursue additional courses in college to fulfill the requirements for the degree.

SPECIAL EDUCATION AND CLINICAL SERVICES

MORTON MORRIS, Chairman

This department offers three options for student majors. Each option follows a prescribed sequence of courses. Students may elect to major in any one of the following fields of exceptionality, namely, (A) EDUCATION FOR THE MENTALLY RETARDED, (B) TEACHING OF THE SPEECH AND HEARING HANDICAPPED, or (C) REHABILITATION EDUCATION. The first two major areas lead to certification in the Pennsylvania Public Schools. The third area prepares student majors seeking career opportunities with health and welfare agencies and institutions.

Education for the Mentally Retarded

A coordinated program of not less than 48 semester hours is required in this major area.

FIRST SEMESTER

	Sm. Hrs.
Eng 101 English I	4
Biol 103 General Biology I or	
Sci 105 Physical Science I	4
SpE 220 Intro to Except Child	3
HPe 101 Health (or)	2
MS 101 Military Science I	2
Art 101 Intro to Art or	
Mus 101 Intro to Music or	
Eng 103 Intro to Theater	3
	16

SECOND SEMESTER

	Sm. Hrs.
Eng 102 English II	4
Biol 104 General Biology II or	
Sci 106 Physical Science II	4
Math 101 Foundations of Math I	3
SpH 254 Speech Dev & Impr	3
MS 102 Military Science I or	2
Free Electives	3
	16-17

THIRD SEMESTER

HPe 102 Physical Education I	1
Geog 112 Geog of U.S. & Pa. II	3
El 222 Teaching of Reading	3
Psy 201 General Psychology	3
Soc 251 Princ. of Sociology	3
*Humanities Electives	3
	16

FOURTH SEMESTER

HPe 203 Phys Educ II	1
SpE 215 Child Development	3
Hist 104 Hist of U.S. & Pa. II	3
Art 330 Arts & Crafts for MR	3
Psy 302 Educ Psych	3
*Humanities Electives	3
	16

FIFTH SEMESTER

SpE 320 Psy of the Ment. Ret.	3
Ed 302 Hist & Phil of Amer Ed	3
Eng 301 Literature II	2
Ed 305 Evaluation Methods	2
El 313 Tchg. of Math for El. Schl.	3
Social Science Elective	3
	16

SIXTH SEMESTER

SpE 301 Reading & L-A for MR	3
LRes 301 Audio Visual Educ	2
SpR 401 Occup. Inform.	3
Psy 352 Mental Hygiene or	
SpE 216 Mental Health in the Schls.	3
Free Electives	5 or 6
	16-17

SEVENTH SEMESTER

SpE 431 Curriculum & Methods for the MR...	3
SpE 411 Health & Phys Ed for the Except. Child	2
*Natural Science Electives	3
Social Science Electives	3
Free Elective	4
	15

EIGHTH SEMESTER

Ed 421 Student Tchg. of the Ment. Retarded..	12
Ed 422 Professional Practicum & School Laws	2
	14

*Student majors in this curriculum may substitute Foreign Language (completion of intermediate sequence) instead of 6 Sem. Hrs. of Humanities/Natural Science electives.

Speech and Hearing

The major in Speech and Hearing consists of 36 semester hours. Twenty-eight are required in speech and hearing, 6 in supporting courses, and one elective may be chosen in the department or in a supporting field.

FIRST SEMESTER

	Sem. Hrs.
Eng 101 English I	4
Bio 103 General Biology I or Sci 105 Physical Science I	4
Art 101 Intro to Art or Mus 101 Intro to Music or Eng 101 Intro to Theater	3
SpH 111 Intro to Speech and Hearing Problems	3
HPe 101 Health Education or MS 101 Military Science I	2
	16

SECOND SEMESTER

	Sem. Hrs.
Eng 102 English II	4
Bio 104 General Biology II or Sci 106 Physical Science II	4
SpH 122 Phonetics	3
Math 101 Foundations of Math	3
HPe 102 Physical Ed I or	(1)
MS 102 Military Science I	2
	15-16

THIRD SEMESTER

Psy 201 General Psychology	3
SpE 220 Intro to Except Child	3
SpH 251 Anat. and Physiology of Sph. Mech..	3
Hist 102 History of U.S. & Pa. II	3
Humanities Elective	3
HPe 201 Physical Ed II	1
	16

FOURTH SEMESTER

Psy 302 Educational Psychology	3
Social Science Elective	3
SpH 222 Intro to Audiology	3
SpH 232 Speech Pathology I	3
Humanities Electives	3
	15

FIFTH SEMESTER

Eng 201 Lit I or Lit II	2
SpE 215 Child Development	3
SpH 321 Psy of Sp and Hr. Handicapped Children	3
SpH 311 Sp. Rd. & Auditory Training	3
SpH 331 Sp. Pathology II	3
SpH 310 Sp. Clinic I	2
	16

SIXTH SEMESTER

LRes 301 Audio-Visual Ed.	2
SpH 312 Org. and Admin. of Sp. and Hr. Programs	3
SpH 320 Speech Clinic II	2
Psy 352 Mental Hygiene	3
Social Science Elective	3
Ed 302 Hist. & Phil. of Amer. Ed.	3
	16

SEVENTH SEMESTER

Ed 302 Statistics	3
Ed 263 Developmental Rdg. or	
El 222 Teach. of Reading	3
Social Science Elective	3
Gen. Electives	7
	16

EIGHTH SEMESTER

Ed 401 Student Tch. Sp. & Hrg.	12
Ed 402 Fundamental Law	2
	14

*Student majors in this curriculum may substitute Foreign Language (completion of intermediate sequence) for the Humanities Electives.

Rehabilitation Education

FIRST SEMESTER

	Sem. Hrs.
Eng 101 English I	4
Biol 103 General Biology I or	
Sci 105 Physical Science I	4
SpE 220 Intro to Except Child	3
HpE 101 Health (or)	2
MS 101 Military Science I	2
Art 101 Intro to Art or	
Mus 101 Intro to Music or	
Eng 101 Intro to Theater	3
	16

SECOND SEMESTER

	Sem. Hrs.
Eng 102 English II	4
Biol 104 General Biology II or	
Sci 106 Physical Science II	4
Math 101 Foundations of Math I	3
SpH 254 Speech Dev & Impr or	
SpH 111 Intro to Sp & Hrg Probs	3
MS 102 Military Science I or	2
Free Electives	3
	16-17

THIRD SEMESTER

HPe 102 Physical Educ I	1
Geog 112 Geog of U.S. & Pa. II	3
Psy 201 General Psych	3
Soc 251 Princ of Sociology	3
Free Electives	3
*Humanities Electives	3
	15-16

FOURTH SEMESTER

HPe 203 Physical Educ II	1
SpE 215 Child Development	3
Psy 302 Educ Psychology	3
Hist 104 Hist of U.S. & Pa. II	3
Eng 301 Literature II	2
*Humanities Electives	(3) or 4
	15-16

FIFTH SEMESTER

SpE 320 Psy of the Ment Ret	3
Ed 302 Hist & Phil of Amer Ed	3
Ed 305 Evaluative Methods	2
SpRe 301 Princ & Meths of Rehab	3
Social Science Electives	3
Free Electives	2
	16

SIXTH SEMESTER

SpRe 321 Rehab Practicum I	6
Psy 352 Mental Hygiene or	
SpE 216 Mental Health In Schls	3
LRes 301 Audio-Visual Educ	2
Free Electives	5-6
	16-17

SEVENTH SEMESTER

SpRe 401 Occupational Info	3
Soc 233 Juvenile Delinquency	3
Soc 338 Intro to Social Work	3
*Natural Science Elective	3
Social Science Elective	3
	15

EIGHTH SEMESTER

SpRe 421 Rehab Practicum II	6
SpRe 402 Clinical Info In Rehabilitation	2
Free Electives	6
	14

*Student majors in this curriculum may substitute Foreign Language (completion of intermediate sequence) instead of 6 Sem. Hrs. of Humanities/Natural Science electives.

ELEMENTARY EDUCATION

P. DAVID LOTT, Chairman

The required courses for a degree in Elementary Education are listed below. It is expected that most of the electives will be used in one academic field, so that when they are combined with the general education requirements in that field, a concentration of at least 18 credits will be attained. The areas of concentration are English, French, Geography, German, History, Mathematics, Science, Social Studies and Spanish.

It is recommended that students who plan to major in elementary education should have high school biology, chemistry, physics, and at least two years of academic mathematics. Students will find this background helpful in taking college level courses in science and mathematics.

(Course sequence subject to change depending upon academic concentration or for administrative purposes.)

FIRST SEMESTER

	Sem. Hrs.
Eng 101 English I	4
Sci 105 Physical Science I	4
Math 160 Foundations of Mathematics I	3
Geog 101 World Geography	3
HPe 101 Health or	
MS 101 Military Science I	2
	16

SECOND SEMESTER

	Sem. Hrs.
Eng 102 English II	4
Sci 106 Physical Science II	4
Math 250 Foundations of Mathematics II	3
Geog 112 Geography of U.S. and Pa.	3
HPe 102 Physical Education I or	1
MS 102 Military Science I	2
	15-16

THIRD SEMESTER

Art 101 Introduction to Art or	
Mus 101 Introduction to Music or	
English 103 Introduction to Theater	3
Foreign Language or	
Humanities Elective*	3
Hist 104 History of U.S. & Pa. II	3
El 221 Children's Literature	3
El 213 Art for the Elementary Grades	2
Elective	2
	16

FOURTH SEMESTER

Foreign Language or	
Humanities Elective*	3
Psy 201 General Psychology	3
El 222 Teaching of Reading	3
El 313 Teaching Mathematics in the	
Elementary School	3
El 211 Music for the Elementary Grades	2
HPe 203 Physical Education II	1
	15

FIFTH or SIXTH SEMESTER

Ed 302 History and Philosophy of	
American Education	3
Psy 302 Educational Psychology	3
El 314 Teaching of Health and	
Physical Education	2
Social Science Elective**	3
Electives	6
	17

FIFTH or SIXTH SEMESTER

Eng 302 Literature II	2
Psy 215 Child Development	3
Bio 311 Environmental Biology	4
Ed 321 Student Teaching	6
	15

SEVENTH or EIGHTH SEMESTER

El 312 Teaching of Elementary Science 3
Social Science Electives** 3
LRes 301 Audio-Visual Education 2
Ed 305 Evaluation Methods 2
Electives 6

16

SEVENTH or EIGHTH SEMESTER

El 411 Teaching of Social Studies 3
El 413 Teaching of Language Arts 3
Ed 422 Professional Practicum and School Law 2
Ed 421 Student Teaching 6

14

*Humanities Electives: Phil 328 Aesthetics, Art 115 Art History I or Art 116 Art History II, Mus 302 Music History II, Hist 101 History of Civilization I, Eng 271 Modern American Fiction, Phil 120 Introduction to Philosophy, Phil 221 Logic, Phil 222 Ethics, Eng 261 Religious Literature, Phil 110 Religious Thought.

**Social Science Electives: Hist 102 History of Civilization II, PolS 111 American Citizenship, Anth 110 Introduction to Anthropology, Soc 251 Introduction to Sociology, Econ 121 Principles of Economics.

ENGLISH EDUCATION

JAMES R. GREEN, Chairman

The student who is a candidate for the degree of Bachelor of Science in Education with an English major must take a minimum of 36 hours in English in order to satisfy the state requirements for certification. Since English majors do not take a minor, many of them augment the basic required program with courses that will prepare them for graduate study in their profession of secondary English teaching. Their advisors work closely with them throughout the four years to assist in the scheduling of general education, professional education, required and elective English courses, and free electives.

It should be noted that a major in English Education must complete the intermediate sequence of a modern foreign language.

FIRST SEMESTER

Eng 101 English I 4
Biol 103 Biological Science I, or
Sci 103 Physical Science I 4
*Foreign Language 3
Art 101 Introduction to Art, or
Mus 101 Introduction to Music, or
Eng 103 Introduction to Theatre 3
HPe 101 Health (women), or
MS 101 Military Science I 2

16

SECOND SEMESTER

Eng 102 English II 4
Biol 104 Biological Science II, or
Sci 104 Physical Science II 4
*Foreign Language 3
HPe 102 Physical Education I (women) 1
or
MS 102 Military Science I 2
Social Science Elective 3

15-16

THIRD SEMESTER

Eng 211 Classical Literature 3
Eng 212 American Literature to 1865 3
Math 101 Foundations of Math 3
HPe 203 Physical Education II (women) 1
Social Science Elective 3
Humanities Elective 3

15-16

FOURTH SEMESTER

Hist 104 History of U.S. and Pa. II 3
Psy 201 General Psychology 3
Eng 251 History of Eng. Language 3
Social Science Elective 3
English Elective 3

15

FIFTH SEMESTER

Eng 363 Structure of English	3
Psy 302 Ed. Psychology	3
English Electives	6
Free Elective	3
	15

SIXTH SEMESTER

Eng 221 Journalistic Writing, or	
Eng 222 Advanced Composition, or	
Eng 223 Creative Writing	3
English Electives	9
Free Electives	6
	18

SEVENTH SEMESTER

Ed 451 Tch. of English, Speech and Reading	3
Ed 301 Evaluative Methods	3
English Electives	6
Free Elective	3
	15

EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Professional Practicum and School Law	2
	14

*English Education majors may complete the intermediate sequence in a modern foreign language in one of three ways: by examination, by earning credit in the 3rd and 4th semesters of a language begun in secondary school, or by completing 4 semesters of a new language.

Required courses for a major in English Education:

Eng 211 Classical Literature (Instead of Eng 201 or Eng 301, one credit counted toward the major)
Eng 212 American Literature to 1865
Eng 222 Advanced Composition (Eng 221 or Eng 223 may be substituted)
Eng 251 History of the English Language
Eng 363 The Structure of English
Ed 451 The Teaching of English, Speech, and Reading

ELECTIVE COURSES:

With the help of his advisor the English Education major will select at least two period courses and one form course from the following list and additional courses to satisfy the 36 credit-hour minimum requirement.

Eng 213 Pre-Renaissance
Eng 214 Shakespeare
Eng 215 The Augustans
Eng 216 The Romantic Movement
Eng 217 Victorian Literature
Eng 218 The Age of Spencer
Eng 219 The Age of Milton
Eng 224 The Metaphysical Poets
Eng 240 The Rise of the English Novel
Eng 241 Nineteenth Century English Novel
Eng 242 The American Novel
Eng 243 Contemporary Short Fiction
Eng 244 Poetry and Its Forms
Eng 245 Modern Drama
Eng 246 American Literature Since 1865
Eng 248 The Age of Johnson
Eng 261 The English Bible as Literature
Eng 271 Modern American Fiction
Eng 351 English Drama to the Restoration
Eng 353 Restoration Literature

Eng 355 Modern European Literature
Eng 356 The English Essayists
Eng 357 The English Novel: Conrad to the Present
Eng 358 Criticism of Contemporary Writing
Eng 359 Seminar in English Studies
Eng 364 Trends in Linguistics

One of the following courses may be counted toward the 36-hour major in English Education.

Eng 133 Newspaper Reporting
Eng 231 Dramatic Arts
Eng 232 Oral Reading
Eng 469 Oral Interpretation
Eng 472 Public Speaking

The following two courses added to the English major will qualify a student for additional certification in reading.

Ed 362 Developmental Reading
El 352 Diagnostic & Remedial Reading

FOREIGN LANGUAGES

HERBERT E. ISAR, Chairman

The major in Foreign Language consists of 33 semester hours credit beyond the college elementary sequence or equivalent high school preparation, and Ed. 451, The Teaching of Foreign Languages in the Secondary School.

Specialization in a Foreign Language

A student may work for certification in French, German, Russian, or Spanish. It is assumed that he will have had at least two years in high school in the language of his choice. He will then begin with the sequence 251-252 and will take concurrently with those courses 053-054, Oral Practice III and IV. If he has not had the language of specialization in high school, he will begin with 151-152 and 051-052, Oral Practice I and II. 151-152 are not counted toward the major.

Language Laboratory

Course titles which bear a number beginning with "0" are language laboratory courses conducted in the language laboratory, and demand independent laboratory work as a major part of preparation. 055 and 056 are advanced conversation courses which may be conducted in the classroom and/or the laboratory.

The Pennsylvania-Valladolid Study in Spain Program

Indiana University of Pennsylvania is charged by the Department of Public Instruction with the organization and administration of this Program for the benefit not only of Indiana students but also students in the Pennsylvania State Colleges. The Program is designed primarily to improve the

preparation of future teachers of Spanish but participation is not a requirement for graduation. Students who participate in the Program will normally have completed the first semester of the junior year. The Program runs annually during the spring semester at the University of Valladolid, Spain, under the supervision of a staff member of the Department of Foreign Languages and a Spanish resident director. A total of 18 hours may be earned in the areas of Spanish language, Literature and Culture. For further details consult the current brochure printed annually. Students enrolled in the School of Education and the School of Arts and Sciences are eligible to participate.

Required Courses

FL 251-252 Language III-IV	3 cr. each
FL 053-054 Oral Practice III-IV	2 cr. each
FL 351-352 Advanced Language I-II	3 cr. each
FL 055-056 Advanced Oral Practice I-II	1 cr. each
FL 361-362 Development of Culture and Literature I-II	3 cr. each
Required FL electives	9 credits
Ed 451 The Teaching of FL in the Sec. Sch.	3 credits

FIRST SEMESTER

Eng 101 English I	4
Biol 103 General Biology I or	
Sci 105 Physical Science I or	
Chem 111 General Chemistry I or	
Phys 111 Physics I	4
HPe 101 Health or	
MS 101 Military Science I	2
FL 251 Language III	3
FL 053 Oral Practice III	2
	15

SECOND SEMESTER

Eng 102 English II	4
Biol 104 General Biology II or	
Sci 106 Physical Science II or	
Chem 112 General Chemistry II or	
Phys 112 Physics II	4
HPe 102 Physical Ed. I or	1
MS 102 Military Science I	2
Art 101 Intro. to Art or	
Mus 101 Intro. to Music or	
Eng 103 Intro. to Theater	3
FL 252 Language IV	3
FL 054 Oral Practice IV	2
	17-18

THIRD SEMESTER

Eng 201 Lit. I or	
Eng 301 Lit. II	2
Hist 101 Hist Civ. I	3
HPe 203 Physical Ed. II (women only)	1
FL 351 Advanced Language I	3
FL 055 Adv. Oral Practice I	1
FL 361 Culture and Literature I	3
Free Elective (women)	3
Free Electives (men)	6
(women)	16
(men)	18

FOURTH SEMESTER

Hist 102 Hist. Civ. II	3
Psy 201 Gen. Psych.	3
FL 352 Advanced Language II	3
FL 056 Adv. Oral Practice II	1
FL 362 Culture and Literature II	3
Free Elective	3
	16

FIFTH SEMESTER

Math 101 Found. of Math. I	3
Psy 302 Educ. Psych.	3
Ed 302 Hist. Philos. Am. Ed.	3
FL Elective	3
Free Elective	3
	15

SIXTH SEMESTER

Hum. or Nat. Sci. Elective	3
Soc. Sci. Elective	3
LRes 301 Audio-Visual Ed.	2
FL Elective	3
Free Elective(s)	3-6
	14-17

SEVENTH SEMESTER

Soc. Sci. Elective	3
Ed 451 Tch. of FL in the Secondary School	3
Ed 305 Eval. Methods	2
FL Elective	3
Hist 104 Hist. U.S. & Pa. II	3
Free Elective	3
	17

EIGHTH SEMESTER

Ed 421 St. Teaching	12
Ed 422 Prof. Prac.	2
	14

Applicable to entrants of Summer 1967 (including ABC students) and thereafter.

Students entering with 2 or 3 high school credits should start with 251 and 053. Veterans with two years of active service will be exempted from the ROTC and Health and Phys. Ed. requirement.

GEOGRAPHY EDUCATION

THOMAS G. GAULT, Chairman

The function and purpose of geography is to prepare the future citizen to make rational judgements in his private and public life as it relates to the use of natural and cultural resources. Geography also acts as a meaningful integrator of the many subject matter areas taken by the student.

Though geography is listed as social science in the curricula, it is of broader scope. Geography includes physical geography (earth science), cultural geography, economic geography, urban and regional planning, or combines these for a broad understanding of man in his total environment.

Vocational opportunities in geography are expanding rapidly. Students will find a wide variety of well-paid positions in government service, marketing, urban and regional planning, army and naval map services, editorial positions, and business.

There are several options for dual certification with a major in the geography department in School of Education. Geography majors are more likely to certify in earth science or social science in addition to their major.

A major in geography consists of 36 semester hours in geography course work as listed in following pages. The options are exercised through judicious use of electives.*

FIRST SEMESTER

English I	4
Gen. Ed. Nat. Science Elective	4
Physical Geography	3
Military Sci. or Health	2
Social Science Elective	3
	16

SECOND SEMESTER

English II	4
Gen. Ed. Nat. Sci. Elective	4
Cultural Geography	3
Military Sci. or Phy. Ed. I	2
General Psychology	3
	16

THIRD SEMESTER

Literature I or II	2
Gen. Ed. Humanity Elective	3
Math 152 or 101	5 or 3
History of U.S. and Pa. II	3
Meteorology or Climatology	4 or 3
	17 or 15

FOURTH SEMESTER

Intro to Art, or Music, or Theater	3
Gen. Ed. Humanity Elective	3
Gen. Ed. Nat. Sci. Elective	3
Gen. Ed. Social Sci. Elective	3
Geology or Physiography	3 or 4
Physical Ed. II (Women)	1
	16 or 17

FIFTH SEMESTER

Educational Psy.	3
Evaluative Methods	2
Geography Anglo-America	3
Regional Geog. Elective	3
Economic Geography	3
	14

SIXTH SEMESTER

Hist. & Phil. of Am. Ed.	3
Audio-Visual Ed.	2
Geography Seminar	3
Regional Geography Elective	3
Geography Elective	3
	14

SEVENTH SEMESTER

Teaching of Geography	3
Elective	6
Free Electives	7
	16

EIGHTH SEMESTER

Student Teaching	12
Prof. Practicum & Law	2
	14
Graduation Total	124

*The Geography major may obtain a combination Social Science certificate by careful selection of general education electives and free electives; or he may be certified in Earth Science by proper election of courses in general education and within geography and free electives.

GEOGRAPHY-EARTH SCIENCE

JAMES E. PAYNE and PAUL A. PRINCE, Advisors

40 semester hours are required for a major in Geography-Earth Science major.

FIRST SEMESTER

	Cr.
Eng 101 English I	4
Sci 111 Chemistry I	4
HPe 101 Health or M.S.	2
Math 152 Algebra and Trig.	5
Geog 101 World Geography	3
	18

SECOND SEMESTER

	Cr.
Eng 102 English II	4
Sci 222 Chem. II or Math II	4 or 5
HPe 102 Physical Education or M.S.	2
Geog 154 Cultural Geography	3
Hist 202 History of Civilization II	3
	16-17

THIRD SEMESTER

ESci 221 Phy. Geology	3
Psy 201 Gen. Psy.	3
Hist 104 History of U.S. and Pa. II	3
Sci 111 Physics I	4
Elective	3
	16

FOURTH SEMESTER

ESci 222 Hist. Geol.	3
Geog 251 Geog. Anglo-America	3
Psy 302 Ed. Psy.	3
Sci 112 Physics II	4
Elective	3
	16

FIFTH SEMESTER

Eng 201 Literature I	2
Geog 149 Econ. Geog.	3
Ed 302 Hist. & Phil. Am. Ed.	3
ESci 351 Oceanography I	3
Geog 249 Meteorology I	3
Art 101 Introduction to Art or	
Mus 101 Introduction to Music	3
	17

SIXTH SEMESTER

Eng 202 Literature II	2
Anth 110 Anthropology	3
LRes 301 Audio-Visual Education	2
ESci 352 Oceanography II	3
Geog 250 Meteorology	3
Geog 246 Physiography	3
	16

SEVENTH SEMESTER

Ed 451 Teaching Geography	3
PolS 111 American Citizenship	3
Ed 305 Eval. Methods	2
Geog 452 Conservation: Res. Use	3
ESci 211 Astronomy or	
Geog 401 Aero-Space Work	3
	14

EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Prof. Pract.	2
	14

MATHEMATICS

MELVIN R. WOODARD, Chairman

The major in mathematics consists of 38 semester hours credit. It is recommended that mathematics majors take Physics I and Physics II as supporting courses.

FIRST SEMESTER

	Sem. Hrs.
Eng 101 English I	4
†Math 152 Algebra and Trig.	5
*Phys 111 Physics I	4
HPe 101 Health or	2
MS 101 Military Science I	2
Math 155 Computer Programming	1
	16

SECOND SEMESTER

	Sem. Hrs.
Eng 102 English II	4
Math 157 Anal. Geom. & Calc. I	4
Phys 112 Physics II	4
HPe 102 Physical Education I or	1
MS 102 Military Science I	2
Intro to Art or Music or Theater	3
	16-17

THIRD SEMESTER

Math 257 Anal. Geom. & Calc. II	4
Foreign Language or Humanities Gen. Ed. Elective	3
SS Gen. Ed. Elective	3
HPe 203 Physical Education II or	1
MS 203 Military Science II	2
Math 375 Intro to Modern Math	3
Eng 201 Literature I	2
	16-17

FOURTH SEMESTER

Math 357 Anal. Geom. & Calc. III	4
Foreign Language or Humanities Gen. Ed. Elective	3
Math 355 Foundations of Geometry	3
SS Gen. Ed. Elective	3
Humanities or Natural Science Elec.	3
	16

FIFTH SEMESTER

Hist 104 History of U.S. and Pa. II	3
Psy 201 General Psychology	3
Math Electives	6
SS Gen. Ed. Elective	3
	15

SIXTH SEMESTER

LRes 301 Audio-Visual Ed.	2
Psy 302 Educational Psychology	3
Ed 302 Hist. and Philosophy of Ed.	3
Math 371 Linear Algebra I	3
Eng 301 Literature II	2
Math Elective	3
	16

SEVENTH SEMESTER

Ed 451 Teaching of Math in Secondary School	3
Math 452 Seminar	1
Math Elective	3
Elective	8
	15

EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Professional Practicum & School Law	2
	14

†Algebra and Trigonometry will be taken by those students who have not shown the necessary pre-calculus proficiency. These credits are not considered as part of the major.

*A science sequence other than physics may be arranged.

PUBLIC SCHOOL NURSING

GEORGE A. W. STOUFFER, Director

The Board of Presidents of the State Colleges approved on January 19, 1951, a curriculum for public school nurses leading to the degree of bachelor of science in education. The requirements shown below must be met.

1. The satisfactory completion of a three-year curriculum in an approved school of nursing and registration by the State Board of Examiners for the Registration of Nurses of Pennsylvania.
2. The satisfactory completion of sixty (60) semester hours of additional preparation distributed as follows:

A. Courses Related to Public School Nursing

	Semester Hours
PSN 301 Public School Nursing	2
PSN 302 Public School Organization	2
PSN 401 Public Health Nursing	6
PSN 402 Nutrition and Community Health	2
PSN 403 Family Case Work	3
TOTAL	15

B. General and Professional Education

Hist 104 History of the United States and Pa. II	3	
Eng 102 English II	4	
Hist 101 or 102 History of Civilization I or II	3	
Eng 201 Literature I	2	
Eng 301 Literature II	2	
PolS 111 American Citizenship	3	
Soc 151 Principles of Sociology	3	
Ed 302 Hist. and Phil. of Am. Ed.	3	
Psy 302 Educational Psychology	3	
Psy 352 Mental Hygiene	3	
SpH 354 Audiometry for PSN	3	
LRes 301 Audio-Visual Education	2	
Electives	11	
TOTAL		45
GRAND TOTAL		60

In the case of nurses with less than three years preparation for registration, such persons will pursue additional courses to meet the requirements for the degree.

PHYSICS DEPARTMENT

RICHARD E. BERRY, Chairman

The curriculum described here will prepare the graduate for physics certification in public school teaching. Transfers into this program from other physics programs can be accepted prior to the junior year. Students planning to go into college or university teaching should consider obtaining a B.A. or B.S. degree. These curricula are described in the Arts and Sciences section of this catalog.

REQUIREMENTS FOR PHYSICS MAJORS

The major in Physics consists of 30 semester hours credit. In addition supporting courses in Chemistry and Mathematics are required.

Major in Physics

FIRST SEMESTER	Cr.	SECOND SEMESTER	Cr.
Eng 101 English I	4	Eng 102 English II	4
Math 152 Alg. & Trig.	5	Math 157 Anal. Geom. & Calc. I	4
MS 101 Military Science I	2	MS 102 Military Science I	2
Phys 111 Physics I	4	Phys 112 Physics II	4
		Art or Music	3
	15		17

THIRD SEMESTER

Math 257 Anal. Geom. & Calc. II	4
Phys 361 Electronics	4
Foreign Language	3
Psy 201 General Psychology	3
Social Science Elective 1	3
	17

FOURTH SEMESTER

Eng 201 Literature I	2
Math 357 Calculus III	4
Phys 222 Mechanics I	3
Phys 242 Optics	4
Foreign Language	3
	16

FIFTH SEMESTER

Ed 305 Evaluative Methods	2
Phys 342 Heat & Thermo	4
Psy 302 Ed. Psychology	3
Chem 111 General Chem. I	4
Elective	3
	16

SIXTH SEMESTER

Ed 302 Hist. & Phil. of Am. Ed.	3
LRes 301 Audio Visual Ed.	2
Phys 331 Atomic & Nuclear Physics	4
Chem 112 General Chem. II	4
Hist 104 Hist. of U.S. & Pa. II	3
	16

SEVENTH SEMESTER

Ed 451 Teaching Science	3
Humanities Elective	3
Phys 421 Selected Experiments	3
Social Science Elective 2	3
Social Science Elective 3	3
	15

EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Profesaional Practicum and School Law	2
	14

Physics Electives

Phys 342 Heat
Phys 361 Electronics
Phys 472 Modern Physics (Required)
Phys 242 Optics
Phys 331 Atomic and Nuclear Physics
Phys 421 Selected Experiments in Atomic, Nuclear and Modern Physics
Phys 483 Quantum Mechanics
Phys 498 Problems in Physics

The Physics-Mathematics major consists of a minimum of 20 credits of Physics and 24 credits of mathematics.

FIRST SEMESTER

	Cr.
Eng 101 English I	4
Math 152 Algebra and Trigonometry	5
HPe 101 Health or	
MS 101 Military Science I	2
Phys 111 Physics I	4
Math 155 Computer Programming	1
	16

SECOND SEMESTER

	Cr.
Eng 102 English II	4
Math 152 Anal. Geom. and Calc. I	4
HPe 102 Physical Education or	
MS 102 Military Science I	2
Phys 112 Physics II	4
Intrn to Art or Music or Theater	3
	17

THIRD SEMESTER

Math 257 Anal. Geom. & Calc. II	4
Foreign Languages or Humanities Gen. Ed. Elective	3
Physical Education or Mil. Science	1-2
Social Science Elective	3
Phys 231 Electronics	3
Eng 201 Literature I	2
	16-17

FOURTH SEMESTER

Math 357 Anal. Geom. and Calc. III	4
Foreign Language or Humanities Gen. Ed. Elective	3
Phys 222 Mechanics I	3
Math 375 Modern Mathematics	3
Eng 301 Literature II	2
	15

FIFTH SEMESTER

Math 361 Differential Equations	3
Social Science Elective	3
Psy 201 General Psychology	3
Humanities of Natural Science Elective	3
Hist 104 History of U.S. and Pa. II	3
	15

SIXTH SEMESTER

Math 355 Geometry I	3
Phys 331 Atomic and Nuclear Physics	3
Psy 302 Educational Psychology	3
LRes 301 Audio-Visual Ed.	2
Math 371 Linear Algebra I	3
Elective	1-3
	15-17

SEVENTH SEMESTER

Ed 302 History and Philosophy of Ed.	3
Ed 451 Teaching of Science or Mathematics in Secondary Schools	3
Phys 421 Selected Experiments in Physics	3
Social Science Elective	3
Elective	4
	16

EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Professional Practicum and School Law	2
	14

REQUIREMENTS FOR EARTH SCIENCE EDUCATION MAJORS

ROBERT L. WOODARD, Adviser

FIRST SEMESTER

	Cr.
Eng 101 English I	4
HPe 101 Health or	
Math 152 Alg. & Trig.	5
MS 101 Military Science I	2
Phys 111 Physics	4
	15

Female students and male students not in ROTC are to schedule 4 credits of physical education in their program.

SECOND SEMESTER

	Cr.
*Art 101 Introduction to Art	3
Eng 102 English II	4
HPe 102 Physical Education	
Math 157 Anal. Geom. & Calculus I	4
*Mus 101 Introduction to Music	
MS 102 Military Science	2
Phys 112 Physics II	4
	17

*Art 101 or Mus 101

THIRD SEMESTER

Chem 111 General Chemistry I	4
ESci 211 Astronomy I	3
Foreign Language	3
Geog 153 Physical Geography	3
Psy 201 General Psychology	3
	16

FOURTH SEMESTER

Chem 112 General Chemistry	4
ESci 212 Astronomy II	3
Foreign Language	3
Eng 201 Literature I	2
Hist 102 History of Civ. II	3
Math 155 Computer Math	1
	16

FIFTH SEMESTER

Biol 103 General Biology I	4
ESci 221 Physical Geology	3
Geog 249 Meteorology	4
Psy 302 Educational Psychology	3
Hist 104 History of U.S. & Pa. II	3
	17

SIXTH SEMESTER

Biol 104 General Biology II	4
ESci 222 Historical Geology	3
Eng 301 Literature II	2
LRes 301 Audio-Visual Education	2
Ed 302 History & Phil. of Am. Ed.	3
Science Elective	3
	17

SEVENTH SEMESTER

ESci 491 Earth Science Seminar	2
Ed 305 Evaluative Methods	2
PolS 111 American Citizenship	3
Science Elective	3
General Elective	3
General Elective	3
	16

EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Practicum	2
	14

ELECTIVES

Science, mathematics, and other electives to be selected in consultation with adviser.

SOCIAL SCIENCE

RAYMOND L. LEE, Coordinator

Forty-two semester hours are required for a major in the Social Sciences, including general education courses in this Division. A minimum of six semester hours must be programmed in each of five areas: Sociology-Anthropology, Economics, History, Geography, and Political Science.

FIRST SEMESTER

	Cr.
Eng 101 English I	4
HPe 101 Health or	
MS 101 Military Science I	2
Laboratory Natural Science	4
General Ed. Hum. Elective	3
General Ed. Soc. Sci. Elective	3
	16

SECOND SEMESTER

	Cr.
Eng 102 English II	4
HPe 102 Phys. Ed. I or	
MS 102 Military Science I	2
Laboratory Natural Science	4
General Ed. Hum. Elective	3
General Ed. Soc. Sci. Elective	3
	16

THIRD SEMESTER

Math 101 Foundations of Math (or alternative)	3
HPe 103 Phys Ed. II (women)	1
Literature I or II	2
Gen. Ed. Soc. Sci. Elective	6
Gen. Ed. Natural Sci. or Hum. Elective	3
	14-15

FOURTH SEMESTER

Psy 302 Education Psychology	3
Gen. Ed. Soc. Sci. Elective	3
Intro to Art, Music, Theater	3
Courses in Major Field	6
	15

FIFTH SEMESTER

Ed 302 Hist.-Phil. Education	3
Courses in Major Field	15
	18

SIXTH SEMESTER

LRes 301 Audio-Visual Education	2
Ed 354 Teaching Social Studies	3
Courses in Major Field or free electives	11
	16

SEVENTH SEMESTER

Ed 305 Evaluative Methods	2
Courses in Major Field or free electives	13
	15

EIGHTH SEMESTER

Student Teaching and Practicum	14
	14

TOTAL 124

HISTORY DEPARTMENT

CLYDE C. GELBACH, Chairman

Thirty semester hours are required for a major in history. Beyond the General Education requirements at least one course must be programmed in each of the following subdivisions: European History, United States History, Regional History. (For course descriptions see page 245.)

European History

Hist 101 History of Civilization I
Hist 102 History of Civilization II
Hist 360 Special Studies in History
Hist 371 Renaissance and Reformation
Hist 372 History of Europe: 1600-1815
Hist 373 History of Europe: 1815-1914
Hist 374 History of the Twentieth Century World
Hist 380 Medieval Europe I, 400-900
Hist 381 Medieval Europe II, 900-1350

United States History:

Hist 103 History of the United States and Pennsylvania I
Hist 104 History of the United States and Pennsylvania II
Hist 345 Colonial America
Hist 360 Special Studies in America
Hist 361 Contemporary United States History
Hist 363 Diplomatic History of the United States
Hist 364 Great Personalities in History
Hist 365 History of Pennsylvania
Hist 390 Social and Intellectual History of the United States to 1875
Hist 391 Social and Intellectual History of the United States Since 1875

Regional History:

Hist 350 History of Latin America: Colonial Period, 1450-1820
Hist 351 History of Latin America: National Period, 1820 to Present
Hist 352 History of England to 1688
Hist 353 History of England, 1688 to Present
Hist 354 History of Russia to 1917
Hist 355 History of Soviet Russia
Hist 356 The Old Regime through the Empire: France 1589-1815
Hist 357 Modern France
Hist 358 History of Germany to 1848
Hist 359 History of Germany: 1849-1949
Hist 375 History of the Far East
Hist 376 History of the Middle East

FIRST SEMESTER	Cr.	SECOND SEMESTER	Cr.
Eng 101 English I	4	Eng 102 English II	4
HPe 101 Health or		HPe 102 Phys. Ed. I or	
MS 101 Military Science I	2	MS 102 Military Science I	2
Humanities General Education		Laboratory Natural Science	4
Elective (Hist. Civ. I)	3	Gen. Ed. Soc. Sci. Electives	6
Laboratory Natural Science	4		16
Gen. Ed. Soc. Sci. Elective	3		
	16		

THIRD SEMESTER

Eng 201 Literature I or	
Eng 301 Literature II	2
Art 101 Introduction to Art or	
Mus 101 Introduction to Music or	
Introduction to Theater	3
Hist 104 Hist. U.S. and Pa. II	3
Math 101 Foundations of Math	3
HPe 103 Phys. Ed. II (women)	1
Humanities General Education	
Elective	3
	15

FOURTH SEMESTER

Psy 201 General Psychology	3
General Education Humanities Elective or	
Natural Science Elective	3
General Education Humanities Elective	3
Courses in major-minor field	6
	15

FIFTH, SIXTH, SEVENTH SEMESTERS

Courses in major-minor fields or	
free electives	15-18 per semester

EIGHTH SEMESTER

Ed 121 Student Teaching	12
Ed 122 Professional Practicum and	
School Law	2
	14

THE SCHOOL OF FINE ARTS

HAROLD S. ORENDORFF, Dean

For countless centuries, man has endeavored to express himself in the creation of the various fine art forms. The departments in the School of Fine Arts are dedicated to the principle of developing the student's creativity in these forms of expression to the highest possible level.

The School of Fine Arts also has a responsibility to the community in the larger sense, that of providing the leadership and stimuli to encourage the growth, development and constant improvement of all the arts in the area.

At the present time, the School of Fine Arts consists of four departments in two administrative units; Art and Art Education, Music and Music Education.

DEPARTMENT OF ART AND ART EDUCATION

LAWRENCE F. McVITTY, Chairman of Department

The general requirements for admission to the University are explained under that heading in this catalog. The applicant for Art or Art Education should submit a portfolio containing work done on his own initiative as well as work completed in school to the Art Department. If, for some reason, a portfolio cannot be submitted the student should arrange an interview with the Art Department.

The art program at the University includes general and professional studies as well as development of the student's creative and expressive abilities. Some students will elect to develop their skills for art teaching. Some will choose to gain

a knowledge of art for use in art related fields. Many students will use the knowledge of art gained here as a background to further study. To meet these various needs, the program requires the student to complete a core sequence of two academic years. Basic experiences are given in the core, equipping the student for a more demanding experience in upper level courses.

Upon entering his Junior year, the student elects to follow a specific concentration. The degrees offered are Bachelor of Science in Art Education, and Bachelor of Arts in: Art History, Painting-Drawing, or Design. Each area follows a planned sequence. The student along with his advisor selects the courses for the student's area of concentration.

The faculty is composed of people who are interested in student welfare. They are dedicated teachers, active professionally in the fields they teach.

Students graduating in Art Education will be qualified to enter the profession of art teaching in the elementary and the secondary schools. This program is a prerequisite to advanced study, which is necessary before the art teacher's certification can be made permanent.

Those students completing the degree Bachelor of Arts in an area of art concentration will be eligible to attend schools for advanced study. The student may find a career in areas where art knowledge or performance are required.

The student is required to maintain a 2.0 average (C) or higher in his major field. Students intending to continue into graduate school are reminded that a 2.5 average is preferred.

The art student must also demonstrate an interest in the welfare of the department by constructive participation in its professional and social affairs.

Credit hours within various divisions:

	Art Education	Art History	Painting-Drawing-Sculpture	Design
General Education	52	52	52	52
Professional Education	28			
Core	26	26	26	26
Major	20	33	30	30
Academic Electives		6	6	6
Art Electives	6	6	9	9
	132	123	123	123

Semester hour credit is counted on the basis of two clock hours of studio for one semester hour of credit.

Art Education Majors are prepared for certification for teaching in both elementary and secondary art.

Any student in the university may elect to take any course in art providing he has received written permission from the particular instructor concerned.

ART MINOR

A student electing to take an Art Minor (15 to 21 semester hours) must complete certain prerequisite courses.

Art History: Art 115, Art 116, Art 411, Art 413. 16 to 18 semester hours of undergraduate work in Art History is required for Master's work in Art History.

Art: Art 111; 112; 113 or 114; 115 or 116 or 411; 211; 213; 215 plus art electives in lower or upper division.

ART AND ART EDUCATION CURRICULUM SEQUENCE

Course sequences are listed herewith. Any variations should be cleared with the student's advisor. A more complete analysis of this is found in the check sheet available in the department office.

CORE SEQUENCE

FIRST SEMESTER

	Sem. Hrs.
Art 111 Drawing I	2
Art 113 Design I	2
Art 115 Art History I	3
Biol 103 General Biol. I or	
Sci 105 Physical Sci. I	4
Eng 101 English I	4
HPe 101 Health or	
MS 101 Military Science I	2
	17

SECOND SEMESTER

	Sem. Hrs.
Art 112 Drawing II	2
Art 114 Design II	2
Art 116 Art History II	3
Biol 104 General Biol. II or	
Sci 106 Physical Sci. II	4
Eng 102 English II	4
HPe 102 Physical Ed. I or	1
MS 102 Military Science I	2
	16-17

THIRD SEMESTER

Art 211 Painting I	2
Art 213 Crafts I	2
Art 215 Sculpture I	2
Art 217 Printmaking I	2
Mus 101 Introduction to Music	3
Psy 201 General Psychology	3
HPe 203 Physical Education II	1
	15

FOURTH SEMESTER

Art 212 Painting II	2
Art 214 Ceramics I	2
Art 216 Metalry I	2
Art 218 Graphic Design I	2
Art 220 Mech Dwg. & Ind. Design	2
Social Science—elective	3
General Studies—elective	3
	16

ART EDUCATION CONCENTRATION

FIFTH SEMESTER

	Sem. Hrs.
Art 311 Painting III	2
Art 313 Sculpture II	2
Art 315 Printmaking II	2
Art 317 Arts & Crafts El. Ed.	2
Art 319 Teach Sem. in El. Art Ed.	1
Math 101 Foundations of Math	3
Psy 302 Educational Psychology	3
Hist 104 History U.S. & Pa. II	3
	18

SIXTH SEMESTER

	Sem. Hrs.
Art 312 Ceramics II	2
Art 314 Costume and Theatre Arts	2
Art 316 Metalry II—enamel-raising	2
Art 318 Arts & Crafts Sec. Ed.	2
Art 320 Teach Sem. in Sec. Art Ed.	1
Social Science—elective	3
LRes 301 Audio-Visual Education	2
Ed 302 History & Phil. of Am. Ed.	3
	17

SEVENTH SEMESTER

Art 411	Art History III	2
Art 413	Seminar in Art	2
Art 415	Crafts II	2
Art	Art electives	6
Eng	Literature I or II	3
	Social Science—elective	3
		17

EIGHTH SEMESTER

Ed 421	Student Teaching	12
Ed 422	Prof. Practicum, including School Law	2
		14

ART HISTORY CONCENTRATION

FIFTH SEMESTER

		Sem. Hrs.
Art 321	Drawing III	2
Art 411	Art History III	2
Art	Art History	3
Art	Art Studio	2
Fl	Foreign Language	3
Math 101	Foundations of Math	3
		15

SIXTH SEMESTER

		Sem. Hrs.
Art	Art Studio	2
Art	Art History	6
Fl	Foreign Language	3
	Social Science—elective	3
		14

SEVENTH SEMESTER

Art	Art Studio	2
Art	Art History	6
	Academic — elective	3
	Social Science — elective	3
		14

EIGHTH SEMESTER

Art 413	Seminar in Art	2
Art	Art Studio	2
Art	Art History	6
	Social Science — elective	3
	Academic — elective	3
		16

DRAWING-PAINTING-SCULPTURE CONCENTRATION

FIFTH SEMESTER

		Sem. Hrs.
Art 321	Drawing III	2
Art 411	Art History III	2
Art	Art Studio	6
Fl	Foreign Language	3
Math 101	Foundations of Math	3
		16

SIXTH SEMESTER

		Sem. Hrs.
Art	Art Studio	2
Art	Art History	3
Fl	Foreign Language	3
	Academic elective	3
	Social Science elective	3
		14

SEVENTH SEMESTER

Art	Art Studio	10
	Academic elective	3
	Social Science elective	3
		16

EIGHTH SEMESTER

Art 413	Seminar in Art	2
Art	Art Studio	6
	Academic elective	3
	Social Science elective	3
		14

DESIGN CONCENTRATION

FIFTH SEMESTER

Art 321	Drawing III	2
Art 411	Art History III	2
Art	Art Studio	4
FI	Foreign Language	3
Math 101	Foundations of Math	3
		14

SIXTH SEMESTER

Art	Art History	3
Art	Art Studio	4
FI	Foreign Language	3
	Social Science elective	3
	Academic elective	3
		16

SEVENTH SEMESTER

Art	Art Studio	10
	Social Science elective	3
	Academic elective	3
		16

EIGHTH SEMESTER

Art 413	Art Seminar	2
Art	Art Studio	6
	Social Science elective	3
	Academic elective	3
		14

Electives

Art 451	Crafts III	2
Art 452	Ceramics III	2
Art 453	Sculpture III	2
Art 454	Painting IV	2
Art 455	Graphic Design II	2
Art 457	Printmaking III	2
Art 458	Architecture and Home Plan.	2
Art 459	Advanced Fabrics	2
Art 460	Advanced Metalry	2
Art 330	Arts and Crafts for Mentally Retarded	3

Electives

MS 101	Military Science I	2
MS 102	Military Science I	2
MS 203	Military Science II	2
MS 204	Military Science II	2
MS 305	Military Science III	2
MS 306	Military Science III	2
MS 407	Military Science IV	3
MS 408	Military Science IV	3

THE MUSIC AND MUSIC EDUCATION DEPARTMENT

WILLIAM C. WILLETT, Chairman

Admission to either department requires a satisfactory tape recorded audition to be mailed to the chairman. Detailed instructions will be sent to the applicant on request.

The Music Division offers a flexible program leading to the Bachelor of Fine Arts in Music with a major in one of the eighteen areas of performance. The graduate of this program will be prepared for graduate study in performance or for an audition for membership in one of the minor professional organizations.

The Music Education Division program leads to the Bachelor of Science in Music Education along with certification to teach in the Public Schools of Pennsylvania.

REQUIREMENTS FOR THE BACHELOR OF FINE ARTS IN MUSIC PERFORMANCE DEGREE

GENERAL EDUCATION

Humanities		16
English I and II	8	
Literature I or II	2	
Foreign Language (Completion of Intermediate Sequence)	6	
Natural Sciences		11
Laboratory Science	8	
Foundations of Math I	3	
Social Sciences		15

Each student will elect five courses from the following:

American Citizenship	Hist. of Civ. II
Intro. to Anthropology	Hist. of U.S. & Pa. II
Principles of Economics	General Psychology
World Geography	Prin. of Sociology

MUSIC

Lower Division		24
Theory I, II, III, & IV	12	
Sight Singing I & II	4	
Ear Training I & II	2	
Keyboard Harmony I & II	2	
Music Literature I & II	4	
Upper Division		14

Fourteen hours to be selected from the following,

Form and Analysis I	2	Hist. of Music I	3
Form and Analysis II	2	Hist. of Music II	3
Counterpoint I	2	Mus. of the An. World	3
Counterpoint II	2	Mus. of the Middle Ages	3
Orchestration I	2	Renaissance Music	3
Orchestration II	2	The Baroque Era	3
Fund. of Conducting	2	18th Century Music	3
Choral Conducting	2	The Early Romantic Per.	3
Inst. Conducting	2	The Late Romantic Per.	3
Lit. of the Major I	2	Contemporary Music	3
Lit. of the Major II	2	American Music	3

Applied Music		40
Major Instrument or Voice	32	
Minor Instrument or Voice	8	

Piano proficiency required.
Junior and Senior Recitals required in the major.

SEQUENCE IN MUSIC PERFORMANCE

FIRST SEMESTER	Hours Sem.	SECOND SEMESTER	Hours Sem.
Eng 101 English I	4	Eng 102 English II	4
MS 101 Military Science I or	(2)	MS 102 Military Science I or	(2)
HPe Physical Education I	(1)	HPe 203 Physical Education II	(1)
Mus 111 Sight Singing I	2	Mus 112 Sight Singing II	2
Mus 113 Ear Training I	1	Mus 114 Ear Training II	1
Mus 115 Theory I	3	Mus 116 Theory II	3
Applied Major	4	Applied Major	4
Applied Minor	1	Applied Minor	1
	16-17		16-17

THIRD SEMESTER

Foreign Language	3
Eng 201 or 301 Literature I or II	2
Mus 215 Theory III	3
Mus 217 Keyboard Harmony I	1
Mus 220 Music Literature I	2
Applied Major	4
Applied Minor	1
	16

FOURTH SEMESTER

Foreign Language	3
Math 101 Foundation of Mathematics	3
Mus 216 Theory IV	3
Mus 218 Keyboard Harmony II	1
Mus 221 Music Literature II	2
Applied Major	4
Applied Minor	1
	17

FIFTH SEMESTER

Laboratory Science I	4
Social Science Elective	3
Applied Major	4
Applied Minor	1
Upper Division Selection	4
	16

SIXTH SEMESTER

Laboratory Science II	4
Social Science Elective	3
Applied Major	4
Applied Minor	1
Upper Division Selection	4
	16

SEVENTH SEMESTER

Social Science Elective	3
HPe 101 Health (women)	(2)
Applied Major	4
Applied Minor	1
Upper Division Selection	4
	12-14

EIGHTH SEMESTER

Social Science Elective	6
Applied Major	4
Applied Minor	1
Upper Division Selection	2
	13

REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN MUSIC EDUCATION DEGREE

GENERAL EDUCATION

Humanities 27-30

- English I and II — 8
- Literature I or II — 2
- Intro. to Art, Music, or Theater — 3
- Basic Music — 14
  - Theory I — 3
  - Ear Training I — 1
  - Sight Singing I — 2
  - Music Literature I — 2
  - Music History I & II — 6
- General elective — (3)
  - Aesthetics
  - Art Hist. I or II
  - Ethics
  - Hist. Civ. I
  - Logic
  - Mod. Am. Fiction
  - Philosophy
  - Religious Lit.
  - Religious Thought

Natural Science 11-14

- Laboratory Science — 8
- Foundations of Math I — 3
- General elective — (3)
  - Astronomy
  - Computer Math.
  - Found. of Math. II
  - Geology
  - Statistics

Social Science		15
Hist. of U.S. & Pa. II	3	
General Psychology	3	
Electives	9	
American Citizenship		
Intro. to Anthropology		
Principles of Economics		
World Geography		
History of Civilization II		
Principles of Sociology		
R.O.T.C. or Physical Education		4
Rhythmic Activities	2	
Health	2	
		60

MUSIC EDUCATION

Required of all Music Education students:	
Theory II, III, and IV	9
Ear Training II	1
Sight Singing II	2
Music Literature II	2
Fundamentals of Conducting	2
Class Woodwinds I	1
Class Brass I	1
Class Strings I	1
Class Percussion I	1
Class Voice I and II	2
Class or Private Piano	2

Eighteen semester hours to be selected from the following with the approval of the advisor: 18

Choral Conducting	2	Private Violin	1
Instrumental Conducting	2	Private Viola	1
French Diction	2	Private Cello	1
German Diction	2	Private Bass Viol	1
Italian Diction	2	Private Flute	1
Counterpoint I	2	Private Oboe	1
Orchestration I	2	Private Clarinet	1
Class Brass II	1	Private Bassoon	1
Class Woodwinds II	1	Private Saxophone	1
Class Strings II	1	Private Trumpet	1
Class Percussion II	1	Private French Horn	1
Private Piano	1	Private Trombone	1
Private Voice	1	Private Baritone Horn	1
Private Organ	1	Private Tuba	1
		Private Percussion	1

42

PROFESSIONAL EDUCATION

Educational Psychology	3
Audio-Visual Education	2
History & Philosophy of Am. Ed.	3
Elementary Methods	2
Secondary Methods	2
Instrumental Methods	2
Professional Practicum	2
Student Teaching	12
	28

Each student must declare a major performing medium and one or more minor performing media. One of the minors for a voice major must be piano and one of the minors for a piano major must be voice.

Jury clearance on all majors and minors is required.

All students must have piano jury clearance at their level of declaration.

All students must participate in one or more performing organizations. It is recommended that participation be in both vocal and instrumental organizations.

Student teaching will include all areas of Music Education at all levels of the public schools.

SEQUENCE IN MUSIC EDUCATION

FIRST SEMESTER

	Hours Sem.
Eng 101 English I	4
HPe Health or	(2)
Mus 111 Sight Singing I	2
MS 101 Military Science I	(2)
Mus 113 Ear Training I	1
Mus 115 Theory I	3
Mus 155 Class Strings I (1st or 2nd)	1
Mus 151 Class Voice I	1
Private or Class Piano	1
	16

SECOND SEMESTER

	Hours Sem.
Eng 102 English II	4
101 Intro to Art, Music or Theater	(3)
MS 102 Military Science I	(2)
Mus 112 Sight Singing II	2
Mus 114 Ear Training II	1
Mus 116 Theory II	3
Mus 152 Class Voice II	1
Private or Class Piano	1
To be selected	1 or 2
	16

THIRD SEMESTER

Laboratory Science	4
Mus 215 Theory III	3
Mus 220 Music Literature I	2
Mus 311 Fundamentals of Conducting	2
Mus 201 Rhythmic Activities I	1
Mus 161 Class Woodwinds I or	
Mus 157 Class Percussion I	1
To be selected	4
	17

FOURTH SEMESTER

Laboratory Science	4
Psy 201 General Psychology	3
Mus 216 Theory IV	3
Mus 221 Music Literature II	2
Mus 205 Rhythmic Activities II	1
Mus 157 Class Percussion I or	
Mus 161 Class Woodwinds I	1
To be selected	3
	17

FIFTH SEMESTER

Math 101 Foundations of Mathematics	3
Eng 201 or 301 Literature I or II	2
Social Science Elective	3
Mus 301 Music History I	3
Mus 331 Elementary Methods	2
Mus 159 Class Brass I	1
To be selected	3
	17

SIXTH SEMESTER

Humanities or Science Elective	3
Psy 302 Educational Psychology	3
Social Science Elective	3
Mus 302 Music History II	3
Mus 333 Secondary Methods	2
To be selected	3
	17

SEVENTH SEMESTER

Ed 302 History and Phil. of Am. Ed.	3
101 Intro. to Art or Theater (men)	(3)
Social Science Elective	3
Hist 101 History of U.S. and Pa. II	3
LRes 331 Audio-Visual Education	2
Mus 334 Instrumental Methods	2
To be selected	1-3
	16

EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Professional Practicum	2
	14

THE SCHOOL OF HOME ECONOMICS

ELLA C. BENDIX, Dean

The School of Home Economics offers two major curricula leading to the Bachelor of Science degree in Home Economics. The Home Economics Teacher Education Curriculum meets certification required for teaching home economics in Pennsylvania. The Institutional Food Service Curriculum offers two programs; one leading to certification for Pennsylvania School Food Service and the other preparing for the American Dietetic Association internship requirements and/or management positions in public and private institutional food services.

General Education: All students in the School of Home Economics are required to complete the general education program and meet teacher certification requirements. Approximately two thirds of this work is taken during the first two years.

Home Economics Professional Requirements: A series of home economics courses are required of all students enrolled in the School of Home Economics. The required courses are:

HE 111 Meal Management
HE 113 Management and Equipment
HE 211 Advanced Foods
HE 212 Nutrition
HE 218 Child Development
HE 315 Family Finance and Consumer Education
HE 411 Family Relations

See pages 250-251-255 for course descriptions.

Home Economics Electives: Students enrolled in the School of Home Economics may choose home economics electives from either department. Some home economics courses may be elected by students not enrolled in the School of Home Economics.

Students are required to maintain a 2.0 (C) average or higher. For those intending to continue into graduate school a 2.5 average or higher is preferred.

It may be necessary for some students to attend one or more summer school sessions during their undergraduate study in order to meet requirements for certification.

The Curricula in the School of Home Economics contributes to the development of professional competencies which enable the students to enter a diversity of careers such as: equipment and utility home service representatives, extension services, homemaking, radio and television and family and community welfare work. These are in addition to the teaching and institutional food service careers.

HOME ECONOMICS EDUCATION DEPARTMENT

A. CAROLYN NEWSOM, Chairman

The Home Economics Education Department offers a home economics teacher education program leading to the Bachelor of Science degree. The program designed to meet university and teacher certification requirements includes courses in general liberal education, home economics, general professional education and professional home economics education. The graduate of this program will be prepared for graduate study in home economics education.

Certification for Teaching Home Economics. Students who expect to qualify for a College Certificate for Teachers of Home Economics in Pennsylvania must complete the requirements for the home economics teaching major.

Certification for Teachers of Nursery Schools or Child Care and Development Laboratories in Secondary Schools Including Vocational Schools. The certificate for teaching home economics in the secondary field will be extended to teaching child care and development in child development laboratories in secondary schools including vocational schools upon completion of an additional twelve semester hours. Course offerings will be in areas of adolescent psychology, child development, nursery school child nutrition, nursery school education and student teaching with children between the ages of two and four years.

Home Economics Teacher Education Curriculum for Pennsylvania State Certification for Teaching

FIRST SEMESTER

	Cr.
Eng 101 English I	4
Chem 101 Chemistry	3
Art 101 Introduction to Art or	
Mus 101 Introduction to Music or	
Eng 103 Introduction to Theatre	3
HPe 102 Physical Education I	1
HE 111 Meal Management	3
HE 213 Principles of Design	2
	16

SECOND SEMESTER

	Cr.
Eng 102 English II	4
Chem 102 Chemistry	3
Social Science Elective*	3
Math 101 Foundations of Math	3
HE 112 Clothing Construction	3
	16

THIRD SEMESTER

Biol 151 Physiology	3
Humanities Elective*	3
Eng 201 Literature I or	
Eng 301 Literature II	2
HPe 101 Health	2
HE 113 Management and Equipment	3
HE 211 Advanced Foods	3
	16

FOURTH SEMESTER

Humanities Elective	3
Psy 201 General Psychology	3
Hist 104 History of U.S. & Pa. II	3
HPe 203 Physical Education II	1
HE 212 Nutrition	3
HE 214 Clothing II	3
	16

FIFTH SEMESTER

Biol 301 Microbiology	3
Social Science Elective*	3
Psy 302 Educational Psychology	3
HE 216 Clothing Selection	3
HE 315 Family Finance and Consumer Education	3
	15

SIXTH SEMESTER

Social Science Elective*	3
Ed 302 History & Philosophy of American Education	3
HE 218 Child Development	3
HE 314 Textiles	3
HE 217 Home Planning and Furnishing	3
	15

SEVENTH SEMESTER

HE Elective	3
LRes 301 Audio Visual Education	2
Elective in any Area	3
HE 315 Methods of Teaching Vocational Home Economics	4
HE 411 Family Relations	3
	15

EIGHTH SEMESTER

Ed 421 Student Teaching	6
Ed 422 School Law	1
HE 412 Nursery School	3
HE 414 Home Management Residence	3
HE 452 Vocational Home Economics Curriculum Construction	2
	15

*See Catalogue Page 256 for listing of elective courses in Humanities, Natural Science and Social Sciences.

Sequence of courses subject to change for administrative purposes.

INSTITUTIONAL FOOD SERVICES DEPARTMENT

ELISABETH A. SCHMIDT, Chairman

Majors in this department pursue the general education program required of all students. A concentration may be selected either for Pennsylvania School Food Service Certification; or to meet dietetic internship requirements for American Dietetic Association professional membership and/or preparation to enter commercial and industrial food management opportunities in public and private food service operations.

To meet professional requirements the program includes Administration, Equipment and Layout, Food Purchasing, Microbiology and Sanitation, Field Food Service Experience, Quantity Food Management, Food Service Accounting, Personnel Management, and an approved summer experience of at least six weeks full-time employment in a food service operation.

Home Economics Education majors may elect food service courses to prepare for teaching in vocational food science programs in the public schools.

Institutional Food Service Curriculum for Pennsylvania School Food Service Certification

FIRST SEMESTER

	Cr.
Eng 101 English I	4
Chem 101 Inorganic Chemistry	3
HE 111 Meal Management	3
HE 113 Management and Equipment	3
HPe 101 Health	2
HPe 102 Physical Education	1
	16

SECOND SEMESTER

	Cr.
Eng 102 English II	4
Chem 102 Organic Chemistry	3
Math 101 Foundations of Mathematics	3
Art 101 Introduction to Art or	
Mus 101 Introduction to Music or	
Eng 103 Introduction to Theatre	3
Social Science Elective	3
	16

THIRD SEMESTER

Psy 201 General Psychology	3
Bio 151 Physiology for Home Ec	3
HE 211 Advanced Foods	3
HE 212 Nutrition	3
HPe 203 Physical Education II	1
Humanities Elective	3
	16

FOURTH SEMESTER

Psy 302 Educational Psychology	3
Chem 351 Biochemistry	3
HE 218 Child Development	3
HE 315 Family Finance and Consumer Economics	3
HPe 204 First Aid	1
Social Science Elective	3
	16

FIFTH SEMESTER

HE 313 Quantity Food Service	3
HE 358 Food Service Equipment Layout	3
Eng 201 Literature I	2
Bio 361 Microbiology and Sanitation	3
Ed 302 History and Philosophy of American Education	3
Humanities Elective	3
	17

SIXTH SEMESTER

HE 359 Quantity Food Purchasing	3
HE 362 Experimental Foods	3
HE 441 Family Relations	3
Eng 301 Literature II	2
Hist 104 History of U.S. & Pa.	3
LRes 301 Audio Visual Education	2
	16

SEVENTH SEMESTER

HE 355 Diet Therapy or Elective in any Area	3
HE 360 Accounting for Food Service	3
HE 364 Methods of Teaching	3
Bus 201 Personnel Management	3
Social Science Elective	3
	15

EIGHTH SEMESTER

HE 356 Food Service Administration	3
HE 361 Food Service Experience	6
Ed 422 School Law	1
HE 402 Nutrition and Community Health	2
	12

Institutional Food Service Curriculum for Institutional Food Service Management

This program meets the American Dietetic Association internship requirements.

FIRST SEMESTER

Eng 101 English I	4
Chem 101 Inorganic Chemistry	3
HE 111 Meal Management	3
HE 113 Management and Equipment	3
HPe 101 Health	2
HPe 102 Physical Education	1
	16

SECOND SEMESTER

Eng 102 English II	4
Chem 102 Organic Chemistry	3
Math 101 Foundations of Mathematics	3
Art 101 Introduction to Art or	
Mus 101 Introduction to Music or	
Eng 103 Introduction to Theatre	3
Social Science Elective	3
	16

THIRD SEMESTER

Psy 201 General Psychology	3
Bio 151 Physiology for Home Ec	3
HE 211 Advanced Foods	3
HE 212 Nutrition	3
HPe 203 Physical Education II	1
Humanities Elective	3
	16

FOURTH SEMESTER

Psy 302 Educational Psychology	3
Chem 351 Biochemistry	3
HE 218 Child Development	3
HE 315 Family Finance and Consumer Economics	3
HPe 204 First Aid	1
Social Science Elective	3
	16

FIFTH SEMESTER

HE 313 Quantity Food Service	3
HE 355 Diet Therapy	3
HE 358 Food Service Equipment and Layout	3
Eng 201 Literature I	2
Bio 361 Microbiology and Sanitation	3
Ed 302 History and Philosophy of American Education	3
	17

SIXTH SEMESTER

HE 359 Quantity Food Purchasing	3
HE 362 Experimental Foods	3
HE 411 Family Relations	3
Hist 104 History of U.S. & Pa.	3
Eng 301 Litersture II	2
LRes 301 Audio Visual Education	2
	16

SEVENTH SEMESTER

HE 360 Accounting for Food Services	3
HE 364 Methods of Teaching	3
Bm 201 Personnel Management	3
Social Science Elective	3
Elective in any Area	3
	15

EIGHTH SEMESTER

HE 356 Food Service Administration	3
HE 361 Food Service Experience	6
HE 402 Nutrition and Community Health	2
Ed 422 School Law	1
	12

The course sequence of either program may be subject to change. *Additional Requirements*: Employment practicum is required of all students. This requirement is met by completion of approved full-time employment of not less than six weeks in a food service operation during a summer period. Military Science 101 and 102 may be substituted for the 4 semester hours of Health and Physical Education for male students.

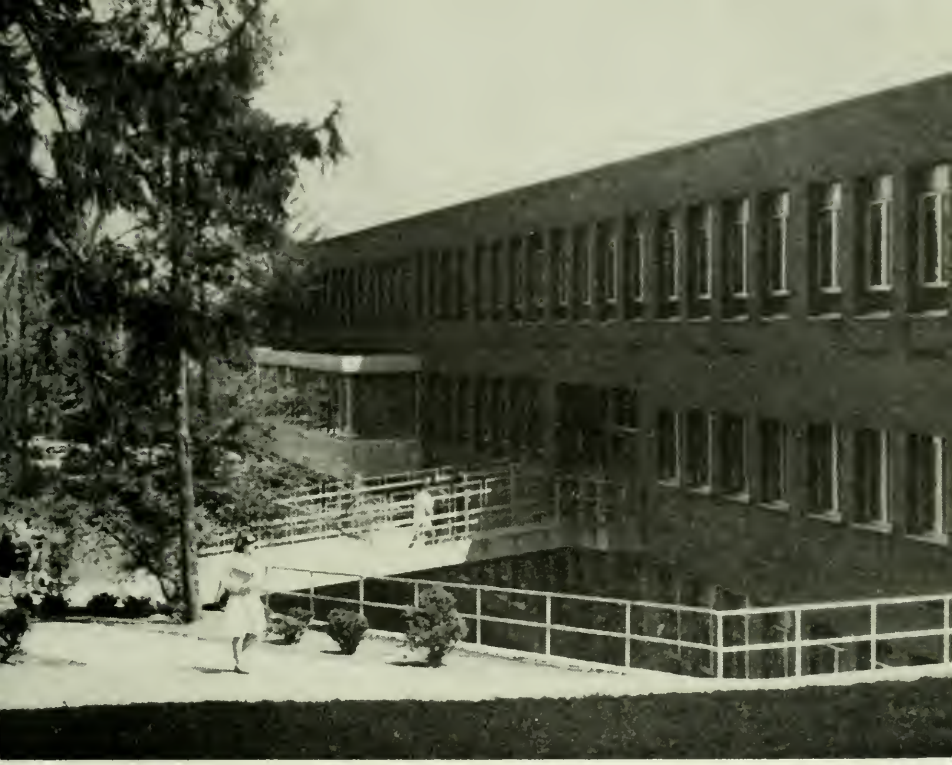
VIEWS and SCENES

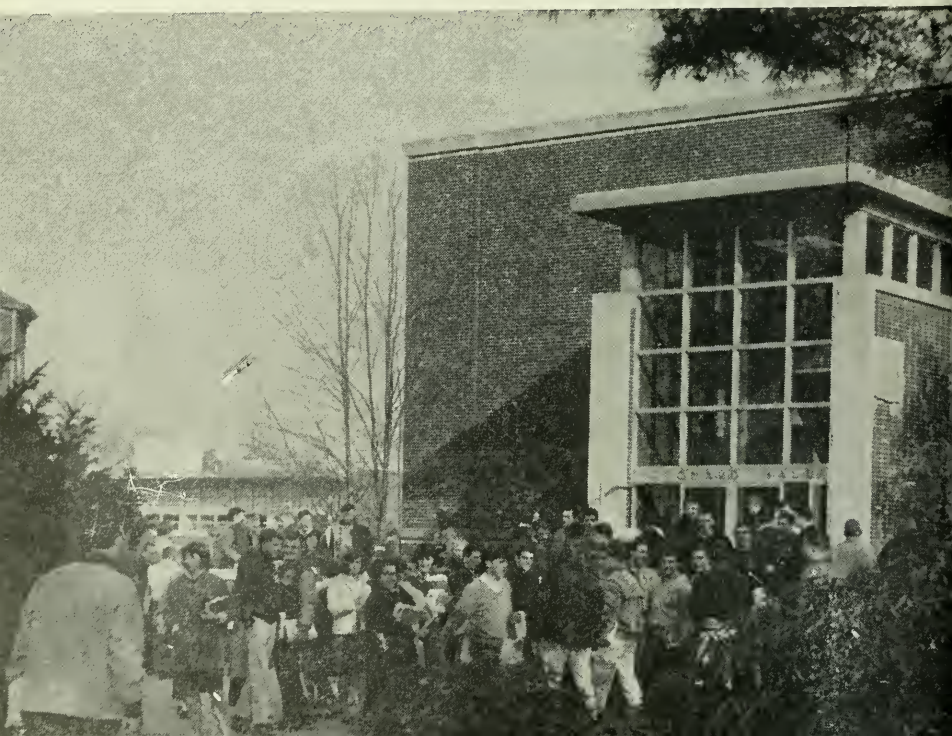
at

INDIANA UNIVERSITY OF PENNSYLVANIA

Indiana, Pennsylvania

CARL S. WEYANDT HALL





RHODES R. STABLER LIBRARY

THE SCHOOL OF HEALTH SERVICES

JOHN CHELLMAN, Dean

The establishment of a School of Health Services provides an opportunity to educate needed personnel representing various health disciplines. The School offers professional curricula leading to appropriate baccalaureate degrees for men and women in physical education; medical technology; corrective, physical, and occupational therapy; and nursing. Indiana University of Pennsylvania is affiliated with approved schools and hospitals for specialized training in all programs of the allied health professions and nursing.

Chemistry and biology are required for admission to the School of Health Services.

At the present time the School of Health Services includes five departments:

1. Allied Health Professions Department
2. Nursing Department
3. Physical Education Department for Women
4. Physical Education Department for Men
5. Athletic Department

ALLIED HEALTH PROFESSIONS DEPARTMENT

JOHN CHELLMAN, Acting Chairman

Corrective Therapy

Corrective therapy is the application of the principles, techniques, and psychology of medically oriented physical education as prescribed by the medical doctor to aid in the complete rehabilitation of the patient.

Men and women graduates with a major in physical education may qualify as corrective therapists with the Veterans Administration by completing a comprehensive six-weeks residency course at a Veterans Administration hospital. This course, conducted during the summer months by a well-qualified hospital staff, requires 240 clock hours of lectures, demonstrations, and clinical experiences in corrective therapy as it applies to the physical medicine and rehabilitation of a Veterans Hospital. Room and board are provided by the supervising hospital.

Students interested in corrective therapy should so indicate prior to the completion of their junior year. Before completing the course, applications may be filed with the Board of Civil Service Examiners, Veterans Administration Central Office, Washington, D. C. A list of Veterans Hospitals offering such training is available in the Dean's office.

Physical Therapy

The suggested major curriculum for Physical Education also satisfies entrance requirements to physical therapy schools approved by the Council on Medical Education of the American Medical Association in collaboration with the American Physical Therapy Association. Since entrance requirements vary to some degree in the approved physical therapy schools, the student should devote his elective hours to additional courses in physics, chemistry, biology, and psychology.

After receiving the B. S. degree, the student enrolls in an approved physical therapy school of his choice for a twelve to sixteen month training period. At the completion of this specialized training, the student will be awarded a Certificate in Physical Therapy.

The following approved schools of physical therapy are located within a reasonable distance of Indiana:

Columbia University, New York
New York University, New York
State University of New York at Buffalo
Ohio State University, Columbus, Ohio
D. T. Watson Home of Physiatrics, Leetsdale, Pennsylvania
University of Pennsylvania, Philadelphia, Pennsylvania

A complete list of the twenty-one (21) schools which accept students with the B. S. degree in physical education is available in the Dean's office.

Occupational Therapy

The suggested major curriculum for Physical Education also satisfies entrance requirements to occupational therapy schools approved by the Council on Medical Education of the American Medical Association in collaboration with the American Occupational Therapy Association. Since entrance requirements vary to some degree in the approved occupational therapy schools, the student should devote his elective hours to additional courses in physics, chemistry, biology, and psychology.

After receiving the B. S. degree, the student enrolls in an approved occupational therapy school of his choice for an eighteen (18) month experience in the theory and practice of therapy. This is a carefully supervised experience under the direction of registered occupational therapists qualified to direct such student activity. Included here are program planning, hospital procedure, applying activity as treatment, record keeping, care of equipment, and academic work.

A list of the schools approved by the Council on Medical Education and Hospitals of the American Medical Association is available in the Dean's office.

MEDICAL TECHNOLOGY

Medical Technology, which has become a full-fledged profession since World War II, is indispensible to the practice of modern medicine. As an integral part of medicine, it entails a wide range of clinical laboratory tests and studies which are invaluable to physicians and surgeons in clinical diagnosis and therapy. Consequently, the Medical Technologist must be a skilled and intelligent member of the medical team capable of actively engaging in furthering the laboratory knowledge of diseases and their treatment and in developing new and improved laboratory methods.

Modern clinical laboratory work requires personnel who possess extensive knowledge of Biology, Chemistry, Microbiology, Hematology, and Histology in addition to judgement, skill, and dexterity.

With the tremendous increase in the number of clinical laboratories during recent years, there is a dearth of Medical Technologists to staff them. At the present time there are approximately 35,000 registered Medical Technologists, and it is estimated that more than twice this number could be employed if available. Hence there are unlimited employment opportunities in this vital field of public service for those who possess the requisite qualifications and training.

The standard program in Medical Technology consists of three years of college study (including specific area requirements) plus a 12-month training period in an AMA approved hospital School of Medical Technology of which there are now about 800 in this country. There are forty-three (43) approved schools in Pennsylvania, ten of which are located within a fifty mile radius of Indiana University of Pennsylvania. Upon completion of the collegiate and clinical training, the student receives his baccalaureate degree from Indiana. Completion of the college and clinical training is followed by a board of examination conducted twice a year by the Registry of Medical Technology of the American Society of Clinical Pathologists. Successful passage of this examination certifies a student as a M.T. (Medical Technologist) signifying that he is a professionally qualified laboratory technologist.

The college phase of the Medical Technology program requires a minimum of 16 semester hours of Biology and Chemistry plus one semester of college mathematics. These requirements together with those in the University's general education program are included in the following three year curriculum:

FIRST YEAR

English I	4	English II	4
General Biology I	4	General Biology II	4
General Chemistry I	4	General Chemistry II	4
Health or Military Science	2	Physical Education	1
Art or Music or Theater	3	Humanities Electives	3
	17		16

SECOND YEAR

Literature I or II	2	Foreign Language	3
Foreign Language	3	Microbiology	3
Zoology	3	Algebra & Trig.	5
Quant. Anal. I	3	Psychology	3
Social Science Elective	3		14
Health & Physical Ed.	1		
	15		

THIRD YEAR

Organic Chemistry	4	Organic Chemistry	4
Physics I	4	Physics II	4
Social Science Elective	3	Social Science Elective	3
Elective	5-6	Elective	3-5
	16-17		14-16

EDUCATION FOR SAFE LIVING

JOHNNY J. MILLER, Chairman

The State Council of Education approved this new certification January 9, 1948. The four courses below, Introduction to Safety Education, Driver Education, the Organization and Administration of Safety Education, and Methods and Materials in Safety Education in the Secondary Schools meet the requirements for certification with 12 semester hours. A temporary standard certificate is issued upon the completion of these courses and it becomes permanent after two years of successful experience in the field.

HPe 251 Introduction to Safety Education **3 cr.**

HPe 252 Driver Education **3 cr.**

HPe 253 Methods and Materials in Safety Education in the Secondary Schools **3 cr.**

HPe 254 Organization and Administration of Safety Education **3 cr.**

See course descriptions listed under Health and Physical Education Department.

NURSING DEPARTMENT

JOHN CHELLMAN, Acting Chairman

Indiana University of Pennsylvania in collaboration with the Latrobe Area Hospital, Latrobe, Pennsylvania, has developed a baccalaureate degree program in nursing to be initiated in September of 1968. This program meets all the requirements of the State Board of Nursing Examiners and the Department of Public Instruction. Graduates of the curriculum will be granted the degree, bachelor of science in nursing.

The freshman and sophomore years will be devoted primarily to a general education curriculum on the Indiana University of Pennsylvania campus. A summer session plus the junior and senior years will be spent at the Latrobe Area Hospital.

The dichotomous nature of a liberal-technical education is truly exemplified by the baccalaureate nursing program offered by the University. The curriculum has been designed to acquaint the prospective nurse with a broad background in general education coupled with the specialized knowledge and skills required for professional competency. The philosophy of this inter-relationship conceives of the professional nurse as a well-informed, well-adjusted, and socially conscious individual desirous of ministering to human suffering. She possesses a keen sensitivity to the worth and dignity of human patients and views them as people instead of as problems to be solved. Additionally, she strives to practice within the professional code of nursing ethics, to interpret her profession to others, and to grow professionally by keeping abreast of current developments.

The educative functions through which the University aims to achieve these objectives are the imparting and integrating of knowledge together with the mastery of problem solving techniques. The Department of Nursing endeavors to serve nursing students in residence, nursing alumni, nurses employed in hospitals and health agencies, schools of nursing, and the nursing profession, and to contribute to the improvement of nursing services at all levels.

Men are eligible to enroll in the nursing program.

Nursing Curriculum*

FIRST SEMESTER	Sem. Hrs.	SECOND SEMESTER	Sem. Hrs.
Eng 101 English I	4	Eng 102 English II	4
Chem 151 Chemistry	3	Chem 152 Chemistry	3
Psy 201 General Psychology	3	Soc 151 Intro. to Sociology	3
Biol 103 Gen. Biology I	4	Biol 104 Gen. Biology II	4
HPe 102 Physical Education I	1	HPe 101 Health	2
	15		16

*Curriculum subject to change on the recommendations of the University or Latrobe Area Hospital.

THIRD SEMESTER

Biol 361 Microbiology	3
Intro. to Art, Music, Theater	3
Hist 101 History of Civilization I	3
Math 101 Foundations of Math	3
HPe 203 Physical Education II	1
Foreign Language or	
Psy 353 Child Psychology or	
SpE 215 Child Development	3
	16

FOURTH SEMESTER

HE 212 Nutrition	3
Eng Literature I or II	2
Hist 104 History of U.S. & Pa. II	3
Phil 330 Philosophy of Science	3
Foreign Language or	
Psy 452 Social Psychology	3
Anth 110 Intro. to Anthropology	3
	17

PRE-FIFTH SEMESTER
(Summer Session—10 wks.)

	Sem. Hrs.
Orientation to Nursing (2 wks.)	0
Fundamental Skills in Nursing (Nursing Arts—6 wks.)	6
Nursing Foundations (History—2 wks.)	2
	8

FIFTH SEMESTER

Medical-Surgical Nursing I	6
Obstetrics	8
Pharmacology	2
	16

SIXTH SEMESTER

Medical-Surgical Nursing II	8
Pediatrics	8
	16

SEVENTH SEMESTER

Medical-Surgical Nursing III	6
Psychiatry	8
Nursing Milieu (Trends)	2
	16

EIGHTH SEMESTER

Medical-Surgical Nursing IV	6
Public Health Nursing	6
Disaster Concepts	1
	13

Curriculum for Physical Education Majors (Women and Men)

Upon satisfactory completion of the requirements of this curriculum, the student will be granted the degree of Bachelor of Science in Health Education by the University and will qualify for a Pennsylvania Provisional College Certificate in Health and Physical Education to be issued by the Department of Public Instruction in Harrisburg, Pennsylvania. This certificate will be valid for teaching health and physical education in any of the grades of the public schools of Pennsylvania. Candidates for the physical education program at Indiana University of Pennsylvania must demonstrate acceptable physical qualifications and intellectual competence as well as desirable character and personality traits. The professional program seeks to foster qualities of human leadership and professional skill and also to develop in the individual a desire to encourage others in their personal growth.

Students who elect this curriculum must pass a thorough physical examination and a comprehensive motor ability test. Students with special health or physical problems which restrict movement or affect appearance will not be accepted.

A major in health and physical education requires a minimum of 40 semester hours of credit in addition to supporting courses in science and English.

Course Sequence

FIRST SEMESTER

	C.H.	S.H.
***Eng 101 English I	4	4
Biol 103 General Biology I	5	4
HPe 152 Introduction to Physical Education	2	2
HPe 111 Aquatics I (2nd half)	3	1
HPe 121 Racquet Sports: Tennis—Badminton—Squash (1st half)	3	1
HPe 131 (W) Basketball—Soccer (1st half)	3	1
M.S. 101 (M) Military Science I	2	1½
Social Science Elective	3	3
Women	23	16
Men	22	16½

SECOND SEMESTER

***Eng 102 English II	4	4
Biol 104 General Biology II	5	4
HPe 112 Aquatics II (2nd half)	3	1
HPe 132 (W) Field Hockey—Volleyball (1st half)	3	1
M.S. 102 (M) Military Science I	2	1½
Social Science Elective	3	3
Eng Speech Elective	3	3
Women	20	16
Men	19	16½

***Required

THIRD SEMESTER

***Eng Literature I or II	2	2
***Psy 201 General Psychology	3	3
HPe 221 Human Anatomy	5	3
HPe 211 (W) Gymnastics—Tumbling (1st half)	3	1
HPe 212 (M) Gymnastics—Tumbling (2nd half)	3	1
HPe 202 Personal Health	3	3
HPe 241 Basic Rhythms—Folk Dancing	3	1
HPe 341 (W) Fundamentals of Movement—Modern Dance (2nd half)	3	1
HPe 231 (M) Football—Volleyball (1st half)	3	1
Gen. Ed. Hum. Elective	3	3
Women	25	17
Men	25	17

FOURTH SEMESTER

**Psy 302 Educational Psychology	3	3
*** Introduction to Art, Music, or Theater	3	3
HPe 222 Human Physiology	5	3
HPe 242 Social and Square Dance (1st half)	3	1
HPe 232 (W) Advanced Field Hockey—Volleyball (2nd half)	3	1
HPe 233 (M) Basketball—Soccer (2nd half)	3	1
Gen. Ed. Hum. Elective	3	3
Gen. Ed. Natural Science or Humanities Elective	3	3
Women	23	17
Men	23	17

FIFTH SEMESTER

	C.H.	S.H.
***Hist 101 History of U.S. & Pa. II	3	3
**LRes 301 Audio-Visual Education	2	2
HPe 351 Tests and Measurement in Health and Physical Education	3	3
**HPe 313 The Elementary School Physical Education Program	3	1
HPe 321 Individual and Dual Sports (Golf—Archery—Bowling—Fencing) (2nd half)	3	1
HPe 331 (W) Track and Field—Softball (1st half)	3	1
HPe 332 (M) Baseball—Resistance Exercises (1st half)	3	1
HPe 334 (W) Adv. Basketball—Tennis—Adv. Gymnastics (2nd half)	3	1
HPe 333 (M) Coaching: Football—Basketball—Swimming—Adv. Gymnastics (2nd half)	3	1
Social Science Elective	3	3
Elective	2	1
Women	25	16
Men	24	16

SIXTH SEMESTER

**Ed 302 History and Philosophy of American Education	3	3
HPe 303 Community Health	3	2
HPe 352 Analysis of Motion	2	2
HPe 362 The Adapted Physical Education Program	2	2
**HPe 314 Teaching Secondary Physical Education	3	1
HPe 372 Care and Analysis of Sports Injuries—First Aid	3	2
HPe 312 (W) Snychronized Swimming—Water Ballet (2nd half)	3	1
HPe 335 (M) Wrestling—Track and Field (2nd half)	3	1
Elective	3	3
Women	22	16
Men	22	16

SEVENTH OR EIGHTH SEMESTER

**HPe 404 The School Health Program	3	2
HPe 451 Organization and Administration of Physical Education	3	3
HPe 353 Physiological Basis for Physical Education	3	2
HPe 431 (W) Intramurals—Special Events in Physical Education	3	2
HPe 432 (M) Conducting Intramural and Interscholastic Programs	2	1
HPe 434 (W) Sports Officiating (1st half)	3	1
HPe 433 (M) Coaching: Wrestling—Baseball—Soccer—Track & Field (1st half)	3	1
*** Natural Science Elective	3	3
Elective	3	3
Women	21	16
Men	20	15

SEVENTH OR EIGHTH SEMESTER

**Ed 421 Student Teaching	30	12
**Ed 422 Professional Practicum and School Law	2	2
Women	32	14
Men	32	14

**Professional Education Requirement
***Required

THE DEPARTMENTS AND COURSE DESCRIPTIONS

Department of Art and Art Education

LAWRENCE F. McVITTY, Chairman of Department

BARBARA J. BALSIGER
ROBERT J. CRONAUER
THOMAS J. DONGILLA
JOHN J. DROPCHO
JOHN A. GHRIST
ROBERT W. HAMILTON
JAMES M. INNES
GEORGE B. JOHNSON
JOANNE P. LOVETTE
RALPH W. REYNOLDS
FRANK ROSS
ROBERT C. SEELHORST
JEAN J. SLENKER
ROBERT E. SLENKER
ROBERT J. VISLOSKY

COURSE DESCRIPTIONS
ART IN GENERAL EDUCATION

Art 101 Introduction to Art (elective for all students) **3 cr.**
Studies in the understanding and enjoyment of the visual arts as modes of expression, feeling, and communication make up the content of this course. Reproductions, demonstrations, slides, moving pictures as well as field trips to see original works of art, are used in sampling our cultural heritage.

Art 115 Art History I **3 cr.**
The visual arts are examined as modes of expression in relation to the life of the individual in the home and in the community. The period covered is from Prehistoric times to the Renaissance.

Art 116 Art History II **3 cr.**
This is a combination of Art History in which appreciation and critical judgment of old and modern masterpieces are goals. The relation of art to the world from the Renaissance to the 20th Century is presented. A brief survey of modern art is presented in the latter part of the course.

CORE SEQUENCE COURSES

These courses are lower level courses which are prerequisite to upper level courses

Art 111 Drawing I (Drawing in All Media) **2 cr.**
A foundation course in drawing which includes a study of perspective light and shadow and composition with a variety of media and subject matter.

Art 112 Drawing II (Composition and Figure Drawing) **2 cr.**
Figure construction, anatomy, and life drawing are studied. Included are pictorial design and composition.

Art 113 Design I (Color and Design) **2 cr.**
Basic elements and principles of design and color are studied. Problems in two and three dimensional design are completed.

Art 114 Design II (Design in Volume and Space) 2 cr.
This course provides the student with a wide variety of experiences in three dimensional design using various materials. Form, volume, and space are considered in different materials and in their relationship to sculpture, architecture, and the crafts. The emphasis is on experimentation with materials and ideas.

Art 211 Painting I (Water Color and Mixed Media) 2 cr.
The course is primarily concerned with transparent water color painting but includes gouache and mixed media. Work begins with a study of brush strokes and realistic on-the-spot painting and progresses through creative realism, semi-abstract and non-figurative approaches.

Art 212 Painting II (Oil Color and Mixed Media) 2 cr.
This is a beginning course in painting with opaque plastic media. The student is introduced to the technical as well as the aesthetic and philosophical basis of painting through a creative approach to the design possibilities inherent in these plastic materials and their associated uses in processes.

Art 213 Crafts I (Crafts in Metal and Wood) 2 cr.
In this course the student is given an opportunity to develop his design awareness through experiencing those craft processes associated with wood and metal. Hand and power tools are used to experiment with these materials in discovering inherent design and construction possibilities.

Art 214 Ceramics I (Pottery and Ceramics) 2 cr.
The basic processes of wheel throwing, hand building, decoration, and ceramic sculpture will be introduced. Earthenware glazes will be dealt with and color tested in relation to their use in classroom situations.

Art 215 Sculpture I (Modeling and Sculpture) 2 cr.
The student develops personal expression while acquiring a knowledge of form as related to the figure. The emphasis will be placed on clay modeling of the human figure. In addition basic carving processes in both stone and wood will be explored.

Art 216 Metalry (Jewelry) 2 cr.
The designing and creating of handwrought, decorative objects using gemstone, ivory, enamels, wood and nonferrous metals is approached from the viewpoint of the beginning craftsman learning the basic processes of metal fabrication. Jewelry making, the lapidary arts and beginning metal-smithing are experienced.

Art 217 Printmaking I (Graphic Arts) 2 cr.
The basic techniques of graphic expression will be studied. They will include: relief, intaglio, lithograph, and serigraph prints.

Art 218 Graphic Design I
(Lettering, Commercial Art and Illustration) **2 cr.**
Layouts are analyzed as to their quality. The students explore various techniques and how they can be translated into commercial art work, package design, trademark and other design problems are confronted. Lettering is stressed, both instant type and hand lettering.

Art 220 Mechanical Drawing and Industrial Design **2 cr.**
The principles and methods of instrumental drawing and shape description are studied in theory and in practice. Modern industrial design practices are studied through the planning and building of three dimensional products.

Art 311 Painting III **2 cr.**
Students are given the opportunity for more individual growth in their creative and expressive ability through painting. Experiences are offered in the transparent and opaque qualities of oil, synthetic and water base media.

Art 312 Ceramics II **2 cr.**
The basic processes will be explored in greater depth and with more individual latitude. Firing techniques and the formulation and testing of stoneware glazes will take place.

Art 313 Sculpture II **2 cr.**
An extension of sculpture I. The student explores carving processes in greater depth. A construction approach to sculpture will begin so that all students will experience both the additive and subtractive approaches to sculpture.

Art 314 Costume and Theatre Arts **2 cr.**
Color and design are used to solve problems in school and college dramatics and pageantry. Theory and practice in the design, construction, painting of scenery, lighting, costume, and properties are basic experiences.

Art 315 Printmaking II **2 cr.**
The basic techniques of graphic expression will be expanded to provide the student with a wider range of possibilities within the techniques of printmaking.

Art 316 Metalry II—Enameling and Raising (Jewelry) **2 cr.**
Further exploration of the metal arts processes are experienced in this course. Advanced silver-smithing, casting in metal and enameling on metal are basic processes attempted by the student craftsman.

Art 321 Drawing III **2 cr.**
This course is concerned with both compositional and internal structural problems based upon a study of the human figure. Anatomical, geometric and surface considerations form the basis for the problems.

Art 411 Art History III **2 cr.**
The great revolutionary movements which began about 1850 and the trends of contemporary arts are vital to the art students of today. This course completes the sequence in the History of Art through the ages.

Art 413 Seminar in Art **2 cr.**
In the course the theoretical background of the arts are studied. The historical, sociological, and formal approaches to the arts are examined with a particular emphasis on the visual arts. This course is a survey of speculative aspect of the arts, and the relation of the arts to life.

Art 415 Crafts II (Fabrics) **2 cr.**
An experience in traditional and experimental techniques of handling the loom. A study of weaving and related processes in fabrics with emphasis on the artistic and design aspects.

PROFESSIONAL EDUCATION COURSES

Art 317 Arts and Crafts in Elementary Education **2 cr.**
This course is designed to help the future art teacher understand the aesthetic and creative development of elementary school children. Art education is studied as a process which helps develop the total growth of the child, and his art products are evaluated by this criterion. Art programs, planning, and motivation are studied critically. Experience is given with two dimensional materials as they apply to the elementary level.

Art 318 Arts and Crafts in Secondary Education **2 cr.**
(This course is a prerequisite to student teaching)
The relationship of art education to the total secondary curriculum is studied to determine the goals of junior-senior high school art. The adolescent and his creative products are analyzed to help the prospective art teacher to identify himself with the problems of his students. Emphasis is placed upon the concept of the adolescent's waning self-confidence in his creative expression and his dire need of aesthetic experiences help reorient himself.

Art 319 Teaching Seminar in Elementary Art Education **1 cr.**

Art 320 Teaching Seminar in Secondary Art Education **1 cr.**
These courses are for the practical application of classroom theory involving children and youth. The concern is with development, use and evaluation of contemporary teaching methods. Art 317 and 319, and Art 318 and 320 are related courses and should be scheduled concurrently. All four courses are prerequisites for student teaching.

Ed 421 Art Student Teaching and Directed Student Activities **12 cr.**

Here the prospective art teacher is given many opportunities, under capable supervision, to guide the creative efforts of students at all age levels in the primary, elementary, junior, and senior high schools. Current philosophies of general and art education are applied in a practical teaching situation. Emphasis is placed on the creative growth of teacher and pupil.

Ed 422 Professional Practicum (including School Law) **2 cr.**

Consideration is given to recent education trends and methods, art curricula, and to planning of art courses for all grade levels. Practicum also includes professional readings, discussions, observations, and the accumulation and organization of pertinent teaching materials.

ELECTIVES IN THE ART CURRICULUM

With the foundations already established in three years of college art work the student may elect advanced courses. The work will be mainly individual, experimental, and in depth, with the aim of helping the student to make the transition from the position of student in the college classroom with directed studies to the position of artist. These studio workshop courses will stress advanced techniques in the particular field of study.

Art 451 Crafts III (Advanced Crafts) **2 cr.**

This course is designed to have the student explore the crafts area in depth. The design and construction of functional objects will be undertaken with emphasis on innovation.

Art 452 Ceramics III (Advanced Ceramics) **2 cr.**

In this course individual long range problems in ceramic art and decoration will be undertaken to foster student competence in the field.

Art 453 Sculpture III (Advanced Sculpture) **2 cr.**

This course is designed to give the student the opportunity to pursue independent study in sculpture. The materials and processes will be of his choosing and the work related to his own concepts with the hope that these concepts will be broadened.

Art 454 Painting IV (Advanced Painting) **2 cr.**

Individual experimentation and exploration by the student painter are encouraged in this course. Investigation of the various technical approaches from the era of the masters to those used by contemporary artists is encouraged. Students are helped to discover their individually unique method of self expression.

Art 455 Graphic Design II (Advanced Commercial Art) 2 cr.
This course stresses advanced techniques in layout and illustration. The student explores ideas, such as invention of trademarks and how products are brought about. Layouts are analyzed as to their quality. Package design is studied.

Art 457 Printmaking III (Advanced Graphic Art) 2 cr.
The student will elect to study the print in greater depth. He will concentrate his interest in two of four basic printmaking processes. He will work toward development of his own techniques and working processes.

Art 458 Architecture and Home Planning 2 cr.
This course is designed for the student who wishes to explore basic ideas in home planning and architecture through studio experience, and a study of architectural history. The emphasis is upon building in the United States and contemporary houses.

Art 459 Advanced Fabrics 2 cr.
Advanced study in areas of construction, decoration, and use of textiles constitutes this course. Weaving, hooking, batik, silk screen, block printing, applique and stitchery will be techniques available to students.

Art 460 Advanced Metalry (Advanced Jewelry) 2 cr.
Design and the processes associated with the art of metalry are given greater concentration. The developing craftsman is encouraged to investigate, in depth, one or more of the metal arts as an extension of the basic courses.

SPECIAL COURSES

Art 330 Arts and Crafts for the Mentally Retarded 3 cr.
The materials and processes of arts and crafts are studied for opportunities they offer in the training, therapy and education of students who are mentally retarded, crippled, or need special help for any reason.

HE 213 Principles of Design 2 cr.
Principles of design and color are studied and applied to a crafted object. The major emphasis is on the aesthetic quality inherent in designing with materials.

El 213 Art for Elementary Grades 2 cr.
The creative growth and development of children is studied. Students are given experiences in the basic art materials and media, as well as opportunity to plan art motivation for children. The course requires that the student attend one lecture session and two studio sessions per week.

El 214 Teaching Art in Elementary Grades 3 cr.
This course provides the student with a wide variety of two and three dimensional art experiences with the emphasis on a developmental sequence from simple to more complex variations of a craft. Emphasis is placed on the creative challenges of the art experience.

BIOLOGY DEPARTMENT

DONALD E. HOFFMASTER, Chairman

FRANK T. BAKER
WILLIS H. BELL
THOMAS E. CONWAY
WALTER W. GALLATI
LOUIS L. GOLD
LEON J. HUE
FRANCIS W. LIEGEY
ROBERT E. MERRITT
JAMES H. MILLER
ARTHUR G. SHIELDS
DWIGHT E. SOLLBERGER
MARTIN L. STAPLETON
RICHARD M. STRAWCUTTER
HENRY H. VALLOWE
RICHARD F. WAECHTER
CYRIL ZENISEK

GENERAL EDUCATION COURSES

Biol 103 General Biology I **4 cr.**

This course deals with the principles of biology. Topics include cellular structure and physiology, growth and repair, reproduction and development, control, sources of food energy, inheritance, and man's interrelationship with his biological environment. The classification of plants and animals is reviewed briefly. Three hours lecture and two hours laboratory.

Biol 104 General Biology II **4 cr.**

Prerequisite: General Biology I.

A continuation of General Biology I. Three hours lecture and two hours laboratory.

Sci 111 Science in Modern Civilization **3 cr.**

This course is designed to acquaint the secondary student with some of the major discoveries of science in all fields and the effects of discoveries upon man's way of life. Emphasis is placed upon developing an understanding of science and its implications. Discoveries leading to more abundant supplies of energy, discoveries contributing to better health and longer life, more rapid transportation, to a more abundant and better food supply, better housing, better clothing and to greater destructive potential are some of the topics developed.

BIOLOGICAL SCIENCE COURSES

Biol 111 Botany I **3 cr.**

Prerequisites: General Biology I and II.

Botany I is primarily a study of the flowering plants. Topics include the anatomy and life processes of plant cells, leaves, stem, roots, flowers, seeds, and fruits. The economic importance of plants used by man and the recognition and classification of the seed plants in the immediate environment of the university are included. Two hours lecture and three hours laboratory per week.

Biol 112 Botany II **3 cr.**

Prerequisites: General Biology I and II. Two hours lecture and three hours laboratory per week.

Botany II is concerned primarily with the non-flowering

plants. It considers both the anatomy and life processes of selected algae, bacteria, fungi, mosses, ferns, and their allies. The economic importance and health implications of certain of these groups are emphasized. The recognition and classification of the non-flowering plants of the immediate surroundings are stressed.

Biol 121 Zoology I **3 cr.**

Prerequisites: General Biology I and II.

This is a study of the life history, habits, origin, development, physiology and anatomy of the main phyla of invertebrates. A phylogenetic sequence is followed to show interrelationships among the phyla. The student becomes acquainted with the many invertebrate species found locally. Two hours lecture and three hours laboratory per week.

Biol 122 Zoology II **3 cr.**

Prerequisites: General Biology I and II. Two hours lecture and three hours laboratory per week.

This course is a study of the chordata in general, and more particularly the classes of vertebrates. Topics studied include the anatomy, physiology, origin, development, and life history of representative members of each class. Special attention is given to the vertebrates found in the vicinity of the university.

Biol 251 Field Botany **3 cr.**

Prerequisites: General Biology I and II.

This is a course in the taxonomy of the vascular plants of the region. It includes the ferns, fern allies, shrubs, trees and herbaceous plants. The use of the standard manuals for the identification of plant materials is stressed. Students are required to make collections for their future use. Two hours lecture and three hours laboratory per week.

Biol 252 Field Zoology **3 cr.**

Prerequisites: General Biology I and II.

Field Zoology is a course in the study of animals in the field; the collection of such forms, and the preparation and utilization of them for museum and instructional purposes. Students are required to make collections for their future use. Two hours lecture and three hours laboratory per week. Field trips are required.

Biol 261 Ornithology **3 cr.**

Prerequisites: General Biology I and II.

Ornithology is a study of the birds of the region supplemented by a review of the major orders of birds of the western hemisphere. Indoor studies of skins are made during the early part of the course, while the latter part of the course is largely field work. Early morning field trips are required. Two hours lecture and three hours laboratory per week.

Biol 262 Entomology 3 cr.

Prerequisites: General Biology I and II.

This is an introduction to the orders of insects, considering their characteristics, habits, and economic relations, together with the collecting and identifying of representative forms from Western Pennsylvania. Two hours lecture and three hours laboratory per week.

Biol 263 Genetics 3 cr.

Prerequisites: General Biology I and II.

The purpose of this course is to give the student an understanding of the laws of inheritance as they operate in plants, animals, and humans. Cell structure, mendelian inheritance, eugenics, linkage, probability, crossing over, and random assortment are considered. Two hours lecture and three hours laboratory per week.

Biol 271 Evolution 3 cr.

Prerequisites: General Biology I and II.

This course deals with the principles of organic evolution. Various lines of evidence for evolution are studied as well as the operational mechanisms involved which have resulted in present-day organisms. Consideration is given to the origin and phylogenetic relationships of biologic groups. The historical development of evolutionary thought is also considered. Three hours lecture per week.

Biol 272 Conservation of Plant and Animal Resources 3 cr.

Prerequisites: General Biology I and II.

In this course special attention is devoted to a study of accepted practices in soil, water, forest, and game conservation. Numerous local and state conservation specialists are called in to assist in the discussion of the specialized fields of conservation. Field work is an essential part of the course. Two hours lecture and three hours laboratory per week.

Biol 281 Parasitology 3 cr.

Prerequisite: Zoology I.

An introductory course which covers the parasitic protozoa, flatworms, and roundworms. Major emphasis is placed upon species infesting man and includes their structure, physiology, ecology, life cycles, pathogenicity and treatment. Laboratory work includes some dissection of vertebrate hosts and fixing, staining and mounting of any parasites recovered. Arthropods involved in parasite transmission are also included. Two hours lecture and three hours laboratory per week.

Biol 285 Biotechniques 3 cr.

Prerequisites: General Biology I and II; General Chemistry I and II.

Through laboratory work, students will gain manipulative skills and allied information pertaining to techniques frequently used by biologists. Major consideration will be given to

microscope slide preparation with lesser emphasis on specialized microscopy and the use of various instruments. Two combined lecture/laboratory sessions of three hours each.

Biol 331 Embryology **3 cr.**

Prerequisite: Zoology II. Two hours lecture and three hours laboratory per week.

A course in the development of vertebrates as exemplified in the frog, chick, and pig. Major emphasis is placed on the chick. The sequence of maturation, fertilization, cleavage, gastrulation and origin of organs is traced.

Biol 332 Comparative Anatomy **3 cr.**

Prerequisite: Zoology II. Embryology is desirable. Three combined lecture/laboratory sessions of two hours each.

This course provides the student with a comparative study of the shark, Necturus and cat. Each system is studied in all three forms concurrently providing a true comparison. Additional vertebrate forms are included in the lecture material.

Biol 341 General Physiology **3 cr.**

Prerequisites: General Biology I and II and General Chemistry I and II.

This course deals first with an exposition of the basic concepts as they apply to the structure of cells and their activities. This is followed by a consideration of the manipulation of energy—of chemical concentration, of electrical potential, of mechanical energy, and of radiant energy—in the cell and organism. Finally, the problems associated with growth and reproduction and the factors involved in the integration of the organisms are considered. Two hours lecture and three hours laboratory.

Biol 351 Plant Physiology **3 cr.**

Prerequisite: Botany I. Two hours lecture and three hours laboratory per week.

This course studies the physiological processes occurring in plants. The phenomena of imbibition, osmosis, digestion, photosynthesis, respiration, transpiration and mineral nutrition are considered in relation to the growth and development of the plant.

Biol 352 Animal Physiology **3 cr.**

Prerequisites: Zoology I and II. Two hours lecture and three hours laboratory per week.

The purpose of this course is to give the student a general background of how animals carry on their bodily processes and a more detailed knowledge of human physiology. Related anatomy is taught as needed.

Biol 361 Microbiology **3 cr.**

Prerequisites: General Biology I and II, General Chemistry I and II, Organic Chemistry I. Two hours lecture and three hours laboratory per week.

This course is a study of microscopic forms of life, both plant and animal, which are commonly encountered in biological work. Some emphasis is placed on the study of disease-producing species of man and his domesticated animals. Methods of culturing forms used in high school teaching are studied.

Biol 362 Ecology 3 cr.

Prerequisites: General Biology I and II.

This is a study of the interrelations and adaptations of plants, and animals and includes consideration of physical as well as biotic environmental factors. Field trips are taken to study various types of ecologic situations. Two hours lecture and three hours laboratory per week.

Biol 371 Vertebrate Anatomy 3 cr.

A study of the anatomical organization of the vertebrate animal. The cat is used as the subject for a detailed laboratory dissection. Prerequisite: Zoology II. Two hours lecture and three hours laboratory per week.

Biol 372 Plant Anatomy 3 cr.

Prerequisite: Botany I. Two hours lecture and three hours laboratory work per week.

The embryological development and the growth and maturation of typical vascular plants will be studied. Emphasis is placed on the differentiation and maturation of the root, stem, leaf and flower among representatives of various plant families.

Biol 381 Mycology 3 cr.

Prerequisites: Botany II, Microbiology or consent of instructor.

This course is designed to introduce the student to the study of the fungi. Myxomycetes and Eumycophyta including the classes Phycomycetes, Ascomycetes, Basidiomycetes, and Fungi Imperfecti will be studied. Emphasis will be given to those organisms which are of economic importance as casual organisms of disease in plants and animals. The investigation will introduce taxonomy, morphology, physiology and ecology of the fungi. Techniques of isolation, growth in pure culture, and identification will be stressed.

Biol 472 Radiation Biology 3 cr.

Prerequisites: Two years of biology, Physics I-II, Chemistry I-II. Additional chemistry through organic and biological chemistry strongly recommended.

Basic aspects of nuclear physics, the phenomena of radioactive isotopes and the biological effects of such isotopes. Concurrent laboratory work utilizing instruments for detection and measurement of radioactive nuclids used in biological experimentation. Two hours lecture, three hours laboratory per week.

Biol 490 Biology Seminar **1-3 cr.**

The seminar is a discussion of recent trends in biological thought and research. Students report on assigned readings and/or personal research. An occasional outside speaker may summarize his research findings or lecture in his area of specialization.

Biol 498 Problems in Biology **1-3 cr.**

A course in which the student may independently investigate any field of biology in which he is interested. This work is supervised by a faculty member but does not involve regular class or laboratory hours. The student should expect to spend three hours per week for each credit earned.

Biol 499 Research Biology **3 cr.**

A course designed to acquaint the undergraduate student with the techniques of modern research by actively engaging in a program of biological experimentation and/or research. Students will work in close harmony with the faculty member (or members) engaged in an active research project. There are no formal lectures or laboratories and a broad biological background is required. Enrollment is by permission only.

COURSE REQUIRED OF EDUCATION MAJORS IN THE VARIOUS FIELDS OF SCIENCE

Ed 451 Teaching Science in the Secondary School **3 cr.**

Prerequisites: 12 hours of work in major field. Two hours lecture and three hours laboratory work per week.

This course is planned to give the science major a thorough background in the problems of teaching science. The objectives of science programs in secondary schools, selection of textbooks, sources of suitable literature, how to secure materials for instruction, the preparation of units, and special techniques are studied.

REQUIRED COURSES FOR STUDENTS IN ELEMENTARY EDUCATION

Biol. 311 Environmental Biology **4 cr.**

This is a laboratory and field course that provides the student with basic knowledge in biology as well as some practical aspects that can be used and applied in the elementary school. The physical and biological aspects of the environment constitute the main theme of the course. Offered on the block only.

El 312 Teaching of Elementary Science **3 cr.**

The fundamental areas of physics and chemistry are covered in this course. Student participation is fundamental to their understanding of the basic principles that can be transferred to the elementary classroom, and to their familiarization with scientific equipment. The latter part of the course is devoted to a survey of the biological environment and continues the work begun in Elementary Science.

REQUIRED COURSES FOR STUDENTS IN HOME ECONOMICS

Biol. 151 Physiology for Home Economics 3 cr.

This is a study of the various physiological processes occurring in the human body and the functioning of the various tissues and organs. Two hours lecture and two hours laboratory per week.

Biol. 361 Microbiology (Sanitation) 3 cr.

This course is a study of microscopic forms of life, both plant and animal, which are commonly encountered in biological work. Some emphasis is placed on the study of disease-producing species of man and his domesticated animals. Methods of culturing forms used in high school teaching are studied. Two hours lecture and three hours laboratory per week.

SCHOOL OF BUSINESS

ALBERT E. DRUMHELLER, Dean

LEE ROY H. BEAUMONT, JR.
MARY JANE BOERING
JAMES F. CAWLEY
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JON C. STOUT
BEATRICE F. THOMAS
HAROLD W. THOMAS
DALE WOOMER

The courses listed below (prefix Bus) are available to students in both the Business Education Department and the Business Management Department. Students in the School of Business should refer to the specific course requirements of their respective departments (BE—Business Education and BM —Business Management) shown on the following pages.

Bus 101 Business Organization and Management **3 cr.**

This introductory course is an overview of the major aspects of business and business management. The interrelated activities of a business firm are integrated through the major functions of management: planning, organizing, directing, and controlling. Emphasis is placed upon principles, practices, and methods common to most business firms in a private enterprise system.

Bus 131 Principles of Typewriting **2 cr.**

For those persons who have had experience in this area in high school, a test is given and exemption from taking the course granted if course standards are met.

This introductory course places emphasis on the development of correct techniques in typewriting. The student is introduced to the basic styles of business letters, simple tabulations, and simple manuscripts. Individual remedial work is given. Specific standards of speed and accuracy are required.

Bus 132 Intermediate Typewriting **2 cr.**

Prerequisite: Bus 131

This course continues the development of speed and accuracy. Students learn to type tabulated reports, special problems in letter arrangement and business forms, rough drafts and manuscripts. Production ability is developed.

Bus 221 Introduction to Accounting **3 cr.**

Prerequisites: Bm 111 or Be 111.

This is the first course in this area and a prerequisite. Its purpose is to introduce the students to the keeping of records for service and professional establishments as well as mercantile enterprises involving the single proprietor. Emphasis is

placed upon the distinction between keeping records on the cash basis as compared to the accrual basis. Consideration is given to special journals, the combined-cash journal, auxiliary records, and business papers.

Bus 233 Marketing 3 cr.

A study of the system of interacting business activities necessary to the planning, pricing, promoting, and placing of want-satisfying goods and services for use by household consumers and industrial users. Concepts and principles will be analyzed in order to give a basic understanding of the marketing system and its significance today.

Bus 235 Business Law I 3 cr.

This course deals with the nature of law and the agencies and procedures for its enforcement, contracts, agency employment, negotiable instruments, property, bailments and transportation. The aim is to apply principles of law to everyday life and to establish proper interests, ideals and attitude toward law as a means of economic and social control.

Bus 251 Intermediate Accounting 3 cr.

Prerequisite: Bus 221.

Special consideration is given in connection with accruals and deferred items; the significance and handling of valuation accounts and the interpretation of the effect of all types of transactions on the operation of the business are stressed throughout the course. Special attention is given to the voucher system and to the preparation of columnar records for different types of business along with the preparation and interpretation of comparative financial reports. Emphasis is placed on payroll accounting, the organization, operation, and dissolution of partnerships.

Bus 261 Shorthand Theory 3 cr.

This is an introductory course in the basic principles of Gregg Shorthand, Diamond Jubilee.

Bus 262 Shorthand Dictation 3 cr.

Prerequisite: Bus 261.

There are three major objectives for this course: to review and strengthen the student's knowledge of the principles of Gregg Shorthand, Diamond Jubilee, to build shorthand-writing speed, and to build transcription skill.

Bus 271 Advanced Typewriting 2 cr.

Prerequisite: Bus 132.

Emphasis is placed upon the further development of speed and accuracy. Advanced letter forms, manuscript writing, legal documents, stencil duplication, statistical reports and typing from problem situations are given much attention. Improvement in production ability is stressed.

Bus 321 Business Communications **3 cr.**

This course stresses the improvement of grammar and punctuation and helps students build their vocabularies. It is designed to develop skill in the writing of several kinds of business letters and reports, as well as application letters and data sheets.

Bus 331 Sales and Retailing **3 cr.**

This course comprises a survey and analysis of the fields of retailing. A study is made of textile and non-textile merchandise, requirements for sales personnel, types of customers, merchandising plans and procedures, merchandise pricing and selling techniques.

Bus 332 Retail Management **3 cr.**

Prerequisites: Bus 251 and 331.

This course is an advanced study of the units of Sales and Retailing, and includes a study of merchandising control, stock planning, buying, pricing, personnel training, store layout and equipment, retail advertising and display. Suggested public relations activities are practiced in this course.

Bus 333 Principles of Selling **3 cr.**

Prerequisite: Bus 332.

Techniques of successful selling are studied and practices. Topics covered include the selection of prospects, the sales approach, determining customer needs, the sales presentation, overcoming objections of the customers, closing the sale and suggestion selling. Sales demonstrations incorporating audio-visual aids will be a part of the course.

Bus 335 Office Machines **2 cr.**

This course covers the various fundamentals of operating office machines—rotary, key driven, and printing calculators; key punch; dictating and transcribing machines; bookkeeping machines. It includes instruction in records management.

Bus 336 Business Law II **3 cr.**

Prerequisite: Bus 235.

The basic aim of this course is the same as that stated for Business Law I. Attention is given to kinds of business organizations, sales, insurance, surety and guaranty, leases and mortgages, trusts and estates, bankruptcy, business torts and crimes.

Bus 339 Business Data Processing **3 cr.**

This course is designed to familiarize students with the development of data processing systems, numbering systems, and data representation. A study will be made of unit record equipment and computer hardware. The students will complete exercises in flow charting and programming and observe demonstrations on electronic data processing equipment.

Bus 352 Corporate Accounting 3 cr.
Prerequisite: Bus 251.
This course is a continued study of the financial principles and practices of accounting with emphasis on the characteristics, records, and financial reports of corporations.

The following topics are included: corporate capital, depreciation, revaluation of plant and equipment, intangibles, inventory valuation, cash and temporary investments, and receivables.

Bus 353 Cost Accounting 3 cr.
Prerequisite: Bus 352.
Basic theory and procedures for determining unit cost of production and cost control involving material, labor, and manufacturing expenses in job-order and process cost systems. The costing of joint and by-products and estimated cost systems is also considered.

Bus 363 Transcription 3 cr.
Prerequisite: Bus 262.
This course develops additional speed in taking dictation with much emphasis placed on the development of transcription skill.

Bus 364 Secretarial Office Practice 3 cr.
Prerequisite: Bus 363.
This course is an advanced study of the theory and the practice in activities common to the office—handling the mail, telegraphic services, shipping services, meeting callers, various business reports, financial and legal duties, transcription, secretarial standards; personality, reference books, itineraries, preparation of documents, editing, etc.

Bus 454 Federal Taxes 3 cr.
Prerequisite: Bus 352.
This course is designed to enable the students to gain a familiarity with the Federal Income Tax Laws as they pertain to individuals, single proprietorships and partnerships. The Social Security Tax Law will also be considered as a phase of this course. In addition to studying the Internal Revenue Code in connection with the above topics, problems will be considered which involve the use of the different forms that are necessary in tax accounting. The case method is utilized in the study of this subject.

Bus 455 Auditing 3 cr.
Prerequisite: Bus 353.
A general review of the qualifications, duties, responsibilities, and professional ethics of auditors. A study of auditing theory and the practical application of auditing standards and procedures to the verification of accounts and financial statements; working papers; and audit reports.

BUSINESS EDUCATION DEPARTMENT

JAMES K. STONER, Chairman

Required Courses For All Business Education Students

Bus 101 Business Organization and Management
(see description on page 182) **3 cr.**

Be 111 Foundations of Mathematics (Business) **3 cr.**

This is a review of the fundamental processes with emphasis on speed and accuracy through adequate drill and practical application in the handling of the fundamental business operations. Topics considered which especially concern business are the 60-day 6 per cent method of computing interest; compound interest; bank, cash, and trade discounts; and partial payments.

Bus 131 Principles of Typewriting
(see description on page 182) **2 cr.**

Bus 132 Intermediate Typewriting
(see description on page 182) **2 cr.**
Prerequisite: Bus 131.

Be 212 Business Mathematics II **3 cr.**
Prerequisite: Be 111.

The purpose of this course is to teach students to apply principles of business mathematics with speed and accuracy in solving advanced problems encountered by the businessman and the consumer. The mathematics of production, marketing, accounting, finance, and management correlate with the accounting courses.

Bus 221 Introduction to Accounting
(see description on page 182) **3 cr.**

Bus 235 Business Law I (see description on page 183) **3 cr.**

Bus 251 Intermediate Accounting
(see description on page 183) **3 cr.**
Prerequisite: Bus 221 and a "C" average in Be 111, Be 212, and English.

Bus 271 Advanced Typewriting
(see description on page 183) **2 cr.**
Prerequisite: Bus 132.

Be 311 Methods of Teaching Business Courses **3 cr.**

This course includes methods of teaching general business courses, as well as shorthand, typewriting, and bookkeeping. Unit plans, demonstrations, and lesson planning are emphasized. Aims, techniques, and procedures of teaching, grade placement of subjects and classroom management are considered items of the course. All courses in the student's major area along with the two psychology courses must have been cleared before this course is taken.

Be 312 Evaluative Techniques in Business Courses 2 cr.
This course includes the construction, administration, scoring, treatment, and grading of various type tests. The analysis of test results, remedial teaching and retesting, the evaluation of tests, all tied together in the psychological foundation of good methods as they function in the field of Business Education.

Bus 321 Business Communications
(see description on page 184) 3 cr.

Bus 331 Sales and Retailing **(see description on page 184)** 3 cr.

Bus 335 Office Machines **(see description on page 184)** 2 cr.

Bus 336 Business Law II **(see description on page 184)** 3 cr.
Prerequisite: Bus 235.

Bus 339 Business Data Processing
(see description on page 184) 3 cr.
(Courses Required in the Stenographic Sequence)

Bus 261 Shorthand Principles
(see description on page 183) 3 cr.

Bus 262 Shorthand Dictation
(see description on page 183) 3 cr.
Prerequisite: Bus 261.

Bus 363 Transcription **(see description on page 185)** 3 cr.
Prerequisite: Bus 262.

Bus 364 Secretarial Office Practice
(see description on page 185) 3 cr.
Prerequisite: Bus 363.
(Courses Required in the Accounting Sequence)

Bus 352 Corporate Accounting
(see description on page 185) 3 cr.
Prerequisite: Bus 251.

Bus 353 Cost Accounting **(see description on page 185)** 3 cr.
Prerequisite: Bus 352.

Bus 454 Federal Taxes **(see description on page 185)** 3 cr.
Prerequisite: Bus 352.
(Courses Required in the Retailing Sequence)

Bus 251 Intermediate Accounting
(see description on page 183) 3 cr.

Bus 332 Retail Management
(see description on page 184) 3 cr.
Prerequisites: Bus 251 and 331.

Be 433 Retail Practice **6 cr.**

Prerequisite: Bus 332.

This is a practical course of cooperative part-time training in the retail establishments of Indiana. The student spends a minimum of 15 clock hours per week for a semester in actual retail work at which time he puts into practice the theories of retailing studied in previous courses. This course may be taken by the student in or near his home town during the summer term by special arrangement and provided the distance is no greater than sixty miles from Indiana. Each of these plans is under the close supervision of store officials and the university.

Bus 455 Auditing **(see description on page 185)** **3 cr.**

Prerequisite: Bus 353.

Be 342 Consumer Economics **3 cr.**

Problems of production, distribution, merchandising, and buying are studied. Intelligent consumership is stressed throughout all aspects of the course. Importance is placed upon maximum satisfaction from goods and services consumed by the individual.

Some Business Management courses may be selected as electives.

GENERAL ELECTIVE

Be 371 Elective Personal Typewriting and Duplicating **1 cr.**

This course may be taken as an elective by upper classmen other than Business Education Department students and Office Management students in the Business Management Department. Emphasis is placed on the development of correct techniques in typewriting. The student is introduced to simple tabulations and the typing of term papers, themes, and manuscripts. He learns how to prepare masters and stencils for use on the various duplicating machines.

DISTRIBUTIVE EDUCATION DEPARTMENT

JAMES K. STONER, Teacher-Educator

(Required Courses For All Distributive Education Students)

Bus 101 Business Organization and Management **(see description on page 182)** **3 cr.**

Bus 131 Principles of Typewriting **(see description on page 182)** **2 cr.**

Be 111 Foundations of Mathematics (Business) **(see description on page 186)** **3 cr.**

Bus 132 Intermediate Typewriting **(see description on page 182)** **2 cr.**

Prerequisite: Bus 131.

Be 212 Business Mathematics II
(see description on page 186) 3 cr.
Prerequisite: Be 111.

Bus 233 Marketing (see description on page 183) 3 cr.

Bus 221 Introduction to Accounting
(see description on page 182) 3 cr.

Bus 235 Business Law I (see description on page 183) 3 cr.

Bus 251 Intermediate Accounting
(see description on page 183) 3 cr.
Prerequisite: Bus 221 and a "C" average in Be 111, Be 212, and English.

Bus 271 Advanced Typewriting
(see description on page 183) 2 cr.
Prerequisite: Bus 132.

Bus 332 Retail Management
(see description on page 184) 3 cr.
Prerequisite: Bus 221 and 233.

Bus 321 Business Communications
(see description on page 184) 3 cr.

Bus 335 Business Machines (see description on page 184) 2 cr.

Bus 336 Business Law II (see description on page 184) 3 cr.

Bus 339 Business Data Processing
(see description on page 184) 3 cr.

Bus 333 Principles of Selling
(see description on page 184) 3 cr.
Prerequisite: Bus 332.

***De 310 Principles of Distributive Education** 3 cr.
The purpose of this course is to acquaint prospective teacher-coordinators with the objectives of distributive education and with the details and problems of organizing, administering, and supervising a complete cooperative program. The course will be concerned with the organization and coordination of vocational education programs and the operation of an Advisory Committee.

***De 313 Methods of Teaching Courses in Distributive Education** 3 cr.
The purpose of this course is to acquaint students with the basic principles of teaching the subjects in this area as well as the specific methods of presentation. Students will prepare unit plans, lesson plans, demonstration aids, and evaluative techniques.

De 434 Supervised Work Experience and Seminar in Distributive Education **6 cr.**

Prerequisite: Bus 333.

Students will gain supervised work experience in selected business establishments operating the field of distribution. This work experience will be conducted under the guidance of competent store personnel and the college supervisor. As part of this program, the students will attend weekly evening seminars in which discussions will center on daily problems. The trainees will be required to submit regular progress reports.

*Admission to professional courses is subject to approval by a faculty committee.

BUSINESS MANAGEMENT DEPARTMENT

CHARLES L. COOPER, Chairman

(Required Courses For All Business Management Students)

Bus 101 Business Organization and Management **(see description on page 182)** **3 cr.**

Bm 111 Foundations of Math (Management) **3 cr.**

This course is designed to provide a broad survey of the fundamental processes of mathematics as applied to business. Emphasis will be placed on the principles of solving business problems by the use of mathematics. Specific areas of concentration include: percentage, interest, discount, annuities, valuation of stocks and bonds, sinking funds, amortization plans, factoring, depreciation, pricing, taxes, insurance, and valuation.

Bm 201 Personnel Management **3 cr.**

Prerequisite: Bus 101.

The fundamental principles involved in maintaining harmonious human relations at all levels of a business enterprise form the nucleus of this course. The basic elements involved in planning, organization, directing, and controlling personnel will be developed. Major topics included are the selection, training, evaluation, motivation, and remuneration of employees.

Bm 215 Business Statistics **3 cr.**

Prerequisites: Bm 111, Math 362.

The major objective of this course is the application of statistical methods which are useful in guiding business decisions. Emphasis will be placed upon such statistical techniques as measures of central tendency, measures of dispersion, measure of relationship, sampling, and index numbers.

Bus 221 Introduction to Accounting **(see description on page 182)** **3 cr.**

Prerequisite: "C" average in Bm 111 and English 101 and 102.

Bus 235 Business Law I (see description on page 183) 3 cr.

Bus 251 Intermediate Accounting
(see description on page 183) 3 cr.
Prerequisite: Bus 221 with not less than "C" grade.

Bus 321 Business Communications
(see description on page 184) 3 cr.
Prerequisite: "C" average in Eng 101 and Eng 102.

Bus 336 Business Law II (see description on page 184) 3 cr.
Prerequisite: Bus 235.

Bus 339 Business Data Processing
(see description on page 184) 3 cr.

(Courses Required in the Accounting Sequence)

Bm 241 Finance 3 cr.
A study of the financial structures of the various types of business organizations. The methods of securing and managing funds on a short-term, intermediate-term, and long-term basis when financing their inception and their operations. An analysis of fixed and working capital requirements.

Bus 352 Corporate Accounting
(see description on page 185) 3 cr.
Prerequisite: Bus 251 with acceptable grade.

Bus 353 Cost Accounting (see description on page 185) 3 cr.
Prerequisite: Bus 352 and "B" average in accounting courses.

Bm 451 Advanced Principles of Accounting 3 cr.
Prerequisite: Bus 353.
A study of accounting problems of a specialized nature including the application of funds statement, consignments, installment sales, statement of affairs, receivership accounts, agency and branch accounting, corporate combinations, and consolidated statements.

Bus 454 Federal Taxes (see description on page 185) 3 cr.
Prerequisite: Bm 451.

Bus 455 Auditing (see description on page 185) 3 cr.
Prerequisite: Bm 451.

Electives (see recommended electives for Business Management students on page 192) 18 cr.

(Courses Required in the Office Management Sequence)

Bus 131 Principles of Typewriting
(see description on page 182) 0 cr.

Bus 132 Intermediate Typewriting
(see description on page 182) 2 cr.
Prerequisite: Bus 131.

Bus 271 Advanced Typewriting
(see description on page 183) **2 cr.**
Prerequisite: Bus 132.

Bus 261 Shorthand Theory (see description on page 183) **3 cr.**

Bus 262 Shorthand Dictation
(see description on page 183) **3 cr.**
Prerequisite: Bus 261.

Bus 335 Office Machines (see description on page 184) **2 cr.**

Bus 363 Transcription (see description on page 185) **3 cr.**
Prerequisite: Bus 262.

Bus 364 Secretarial Office Practice
(see description on page 185) **3 cr.**
Prerequisite: Bus 363.

Bm 470 Office Management **3 cr.**
Prerequisite: Senior standing.
A study of the duties and responsibilities of the office manager; the principles of practical office management and their application in controlling office costs; flow of work; purchase and use of office equipment; selection, training, and supervision of office employees; and report writing.

Electives (see recommended electives for Business Management students below) **15 cr.**
(Required Courses in the General Business Sequence)

Bm 241 Finance (see description on page 191) **3 cr.**

Bus 352 Corporate Accounting
(see description on page 185) **3 cr.**
Prerequisite: Bus 251.

Bus 454 Federal Taxes (see description on page 185) **3 cr.**
Prerequisite: Bus 352.

Electives (see recommended electives for Business Management students below) **27 cr.**

RECOMMENDED ELECTIVES FOR BUSINESS MANAGEMENT STUDENTS

SCHOOL OF BUSINESS COURSES:

Bus 331 Sales and Retailing
(see description on page 184) **3 cr.**

Bus 332 Retail Management (see description on page 184) **3 cr.**
Prerequisites: Bus 251 and 331.

Bus 335 Office Machines (see description on page 184) **2 cr.**

Bm 380 Principles of Investments **3 cr.**
The analysis and evaluation of various types of securities and other forms of investment possibilities and a study of the principles of sound investment policies. Factors influencing the general movement of security prices and the return from investments are considered.

Bm 381 Principles of Insurance **3 cr.**
The historical development, the fundamental principles, and the social and regulatory environment underlying all forms of insurance—life, property, casualty, fire, and surety is considered. A comprehensive study of the theory of risk and its application to insurance.

Bm 382 Principles of Real Estate **3 cr.**
A study of the regulations, practices, legal aspects and professional ethics of the real estate business, including the areas of financing, advertising, property valuation and appraisal, and selling.

Bm 434 Advertising **3 cr.**
An introduction to the principles, practices, advantages, and limitations of advertising, including the purposes, techniques, media, and organization of advertising campaigns. The legal, economic, and social aspects of advertising are also considered.

Bm 438 Marketing Research **3 cr.**
The nature, methods, analysis, and application of present day marketing research techniques utilized in the solution of practical marketing problems studied through the use of case material and outside research.

Bm 456 Advanced Cost Accounting **3 cr.**
Prerequisite: Bus 353.
The study of the theory, preparation, and use of budgets, production cost standards, and the analysis of cost variances as means of cost controls is emphasized. Direct costing and extensive analysis of various cost control and profit planning programs are also considered.

Bm 461 Business Computer Programming I **3 cr.**
The objective of this course is to provide an understanding of computer programming concepts so that the student can master any computer language. The System 360 (I.B.M.) Assembler language will be covered and will be related to: I. Translators, Compilers, and Assembler Languages: II. Higher Level Language Processors; III. Macro-Generators; IV. Report Program Generators; V. Sort-Merge and Input and Output Control Systems; VI. System Simulators; VII. Computer Monotoring and Supervisor Systems as C.O.S., D.O.S., T.O.S, and O.S.

Bm 471 Business Computer Systems I **3 cr.**
The objectives and goals of the business information system and the sub-systems of payroll, receivables and payables and general accounting are determined. The classification and file organization of cross-functional information and the file maintenance techniques of mass storage of magnetic tape and disk storage are reviewed. The use of block diagrams, flow charts and PERT Systems networks portray the integrated and coordinated business information system.

Bm 490 Decision Making In Business **3 cr.**
A case approach to the analytical techniques and concepts necessary in making business decisions concerning marketing, costs, pricing, profits, competition, production, and capital management.

COURSES BY OTHER DEPARTMENTS

(see description in the listing of department offering the course)

ECONOMICS DEPARTMENT:

Econ 321 History of Economic Thought **3 cr.**

Econ 340 Economic Development **3 cr.**

Econ 345 International Economics **3 cr.**

FOREIGN LANGUAGE DEPARTMENT:

151-152 Any Foreign Language **6 cr.**
Other electives are available with the approval of departmental chairman.

Course Descriptions

CHEMISTRY DEPARTMENT

PAUL R. WUNZ, JR., Chairman

CARL W. BORDAS
EDWARD N. BROWN
EDWARD G. COLEMAN
JOSEPH J. COSTA
WALTER GRANATA
RICHARD HARTLINE
WILLIAM I. HEARD
RICHARD KOLACZKOWSKI
RONALD L. MARKS
ROBERT N. MOORE
FREDERICK R. PARK
ROBERT PATSIGA
JOHN H. SCROXTON
STANFORD L. TACKETT
GENO ZAMBOTTI

Chemistry Courses

Chem 101-102 Home Economics Chemistry I and II **6 cr.**

This course is open only to those students who are majoring in home economics and school food service management. The first semester covers the principles of general inorganic chemistry. The second semester covers those topics of organic chemistry and biochemistry which would be most important for the student of home economics. Three hours lecture and two hours laboratory per week.

Chem 103 Chemistry for Nurses **3 cr.**

This course is open only to students in the nurses' training program connected with the hospital. It is a one semester course, designed to survey the areas of inorganic, organic and biochemistry, particularly those topics which are related to the fields of medicine, nursing, and health. Three hours lecture and two hours laboratory per week.

Chem 111-112 General Chemistry I and II **8 cr.**

General Chemistry I includes the study of the nature of matter, atomic structure, periodic law, chemical bond, stoichiometry, gases, liquids, solids and solutions. General Chemistry II includes chemical kinetics, chemical equilibrium, electrical energy and chemical change, oxidation and reduction, descriptive chemistry and organic chemistry. The laboratory work illustrates fundamental principles; during the first semester it is semiquantitative in nature, and the second semester is devoted to qualitative analysis. Two hours lecture, one hour recitation and three hours laboratory per week.

Chem 151-152 Organic and Biochemistry **6 cr.**

This course is planned to include those topics from the fields of organic chemistry and biochemistry that are most important for the student of home economics. The structures, properties, and preparation of the various classes of organic compounds are surveyed. This information then serves as a basis for the study of various materials encountered by a professional home economist, whether teaching or employed by

private industry. Three hours of lecture and two hours of laboratory per week.

Chem 201 Industrial Chemistry **3 cr.**

Prerequisites: General Chemistry I and II.

This course is a study of the applications of chemistry and science to the industries of Western Pennsylvania for the science teacher. The course consists of lectures, laboratory work, and field trips to representative industries. Two hours lecture and three hours laboratory per week.

Chem 231-232 Organic Chemistry I and II **8 cr.**

Prerequisites: General Chemistry I and II

A study of the compounds of carbon with special emphasis being placed on the structure and reactions of the more important classes of carbon compounds. The laboratory work involves the preparation and purification of representative compounds. Three hours lecture and three hours laboratory per week.

Chem 301 Chemistry Seminar **1 cr.**

The seminar is a discussion of current technical literature, reports of students' research projects, and occasional lectures by noted chemists. The course is open to junior and senior chemistry majors or by permission of the instructor. One hour per week.

Chem 303 Glassblowing Techniques **1 cr.**

The course is designed to introduce the science student to the techniques necessary for the construction and modification of scientific glass apparatus. Enrollment limited to juniors and seniors. One hour instruction with two hours practice at students' convenience per week.

Chem 305-306 **See page 198 of this section.**

Chem 321 Quantitative Analysis **4 cr.**

Prerequisites: Chem 111 and 112. Lectures, three hours per week; laboratory four hours per week.

The theory and practice of quantitative analysis includes gravimetric and volumetric analysis. Special emphasis is placed on perfecting the student's laboratory technique and application of general chemical knowledge through problem solving.

Chem 322 Instrumental Analysis **4 cr.**

Prerequisite: Chem 321.

This course is designed to instruct the student in Modern Instrumental Methods of Chemical Analysis. The student will learn the theory behind the instrument, the principles of operation, the interpretation of the data obtained, and the limitations of the methods. Three hours of lecture and four hours of laboratory.

Chem 331 Organic Qualitative Analysis **2 cr.**

Prerequisites: Organic Chemistry I and II (Organic Chemistry II may be taken concurrently).

A course designed to give the student experience in the systematic identification of various classes of organic compounds by both chemical and physical methods. Six hours of laboratory per week.

Chem 333 Organic Mechanisms and Stereochemistry **3 cr.**

Prerequisite: Organic Chemistry I and II.

An advanced undergraduate course in which the study of organic chemistry is approached on the basis of the mechanism by which the reactions occur. Such areas as nucleophilic and electrophilic substitution, addition and elimination reactions, carbanions and carbonium ions and rearrangements will be considered. The stereochemistry of organic compounds will be studied. Three hours lecture per week.

Chem 341 Physical Chemistry I **4 cr.**

Prerequisites: Calculus II and Organic Chemistry I and II.

Classical thermodynamics, thermochemistry, gases, solutions and other topics as time permits. Three hours lecture and four hours laboratory per week.

Chem 342 Physical Chemistry II **4 cr.**

Prerequisite: Physical Chemistry I.

Application of classical thermodynamics to the study of phase equilibria, kinetics, diffusion, and other topics as time permits. Introduction to statistical thermodynamics and quantum physics. Three hours lecture and four hours laboratory per week.

Chem 351 Biochemistry **3 cr.**

Prerequisite: Organic Chemistry I.

A study of the chemistry of carbohydrates, lipids, proteins, minerals, vitamins, and hormones and the biological functions of each. Two hours lecture and three hours laboratory per week.

Chem 411 Inorganic Chemistry **3 cr.**

Prerequisite: Organic Chemistry I

This course is designed to give the student an understanding of the advanced theory of atomic structure, chemical bonding, acids and bases, coordination compounds, and selected topics. Three hours lecture per week.

Chem 412 Inorganic Preparations **3 cr.**

Prerequisite: Organic Chemistry I.

Lectures will include a discussion of the descriptive chemistry of the elements according to their periodicity. The laboratory will be an investigation of the synthesis, purification, identification, and characterization of inorganic substances. One hour lecture and six hours laboratory per week.

Chem 421 Advanced Instrumental Analysis **3 cr.**

Prerequisite: Instrumental Analysis.

A study of modern chemical analysis using advanced instrumental techniques. The areas of X-ray analysis, spectroscopy, gas chromatography and electroanalysis will be featured. Emphasis will be placed on theory, principles of operation, capabilities, and limitations of the advanced analytical instruments used. One hour lecture and six hours laboratory.

Chem 441 Advanced Physical Chemistry **3 cr.**

The course will include statistical thermodynamics, theoretical kinetics, and other topics of current interest. Three hours lecture.

Chem 498 Problems In Chemistry **1 to 2 cr.**

This course includes laboratory work, library reading, and conferences with a staff member. The purpose of the course is to give the student experience in the investigation of selected problems in chemistry. The credit is to be arranged.

Sci 105 Physical Science I — See course description in Physics Dept. **4 cr.**

Sci 106 Physical Science II **4 cr.**

A course designed to fulfill the University science requirement for non-science majors. This semester will survey the fields of chemistry and geology. Physical Science I (see Physics Department) is not a prerequisite for Physical Science II and therefore either course may be taken first. Three hours lecture and two hours laboratory.

Chem 305-306 New Approaches to Teaching High School Chemistry **4 cr.**

A course designed to acquaint the teacher and prospective teacher with the newer approaches to high school chemistry. One semester would consider the Chemical Bond Approach curriculum and the other semester the Chem Study curriculum. The student must be at least a junior chemistry education major. Arts and Science majors may take the course but will not be given credit towards graduation. The course will also include revisions of these newer approaches to high school chemistry, as well as any course being currently developed in the Secondary Chemistry Curriculum. Every prospective student teacher should plan to take these courses prior to his/her practice teaching experience.

For E. Sci Courses see Physics Department.

COUNSELING AND GUIDANCE DEPARTMENT

GEORGE L. SPINELLI, Chairman

ROBERT H. SAYLOR
JAMES C. WILSON
DOROTHY M. SNYDER
EDWARD D. SHAFFER
WILLIAM J. LEVENTRY

The courses listed below are available, as electives and as offered, to undergraduate students in Education, in-service teachers, and other school personnel seeking a broad understanding of helping roles in a school program of guidance services. These courses are not designed for those who would aspire to become school counselors. For information on counselor education programs see the current Graduate School Bulletin.

COURSE DESCRIPTIONS

CnGd 251 Fundamentals of Guidance **3 cr.**

This course is an elective for undergraduate students in Education and aims to provide a broad understanding of the role of the classroom teacher in a school guidance program.

CnGd 252 Guidance in School Settings **3 cr.**

This is a survey course in guidance designed as an elective for in-service teachers and school personnel other than counselors.

CnGd 253 Counseling in School Settings **3 cr.**

This is an elective course designed to provide in-service teachers and school personnel, other than counselors, a basic understanding of the knowledge, information, and skills appropriate to counseling with individuals and groups.

ECONOMICS DEPARTMENT

FRANCIS G. McGOVERN, Chairman

IRWIN M. MARCUS
WILLIS J. RICHARD
ROBERT C. VOWELS
BRONISLAW S. WOJTUN

Course Descriptions

Econ 101 Basic Economics **3 cr.**

General education elective. Acceptable in the departmental majors program in lieu of Econ 121 only upon achievement of 3.0 grade or better.

Major characteristics of the American economy: nature of capitalism; major distinctions from other economic systems; role of the price system; national income; employment theory; money and banking; market structures; resource use; current domestic and international problem areas.

Econ 121 Principles of Economics I **3 cr.**

Foundation course for those planning further course work in economics and required of all economics majors.

Nature and methodology of economics; mixed capitalism and the market economy; national income; full employment theory, including the economics of fiscal policy; money, banking, and the Federal Reserve System; economic growth.

Econ 122 Principles of Economics II **3 cr.**

Sequel to Econ 121, required of all economics majors, and substitute for earlier Econ 241.

Economics of the firm; theory of consumer demand; supply, costs, and resource allocation; the basic market models; price and output determination. Current social imbalances, the labor sector, foreign trade and the balance of payments, foreign economies.

Econ 221 Macroeconomic Analysis **3 cr.**

Prerequisites: Econ 121 and 122.

Income and employment analysis; national income accounts and theory; classical, Keynesian, and post-Keynesian models; investment, growth, and inflation theory; the role of government in the economy.

Econ 222 Microeconomic Analysis **3 cr.**

Prerequisites: Econ 121 and 122.

Price, output, and distribution theory analyzed by market structure, with particular emphasis on monopolistic competition and oligopoly; resource allocation; general equilibrium analysis; consumer behavior; applications to current problems of economic policy.

Econ 321 History of Economic Thought **3 cr.**

Prerequisite: Econ 121, or Econ 101 if accepted in substitution.

Contributions of the more prominent early philosophers through to the modern economists and of the major schools of economic thought: Mercantilists, Physiocrats, Classicists, Socialists, Marginalists, Institutionalists, Neo-Classicists, Keynesians, Post-Keynesians.

Econ 352 Money, Banking, and Monetary Policy **3 cr.**

Prerequisite: Econ 121, or Econ 101 if accepted in substitution.

Organization, operation, and economic significance of American monetary institutions; commercial banks and the Federal Reserve System; monetary theory and policy; the mechanism of international payments.

Econ 330 Industrial and Labor Relations **3 cr.**

Prerequisite: Econ 121, or Econ 101 if accepted in substitution.

Worker-management-government relationships in the industrialized segment of the American economy: history, structure, and operations of trade unions and employer organizations; major federal labor sector legislation; collective bargaining theory; wage determination; current labor problems.

Econ 335 Public Finance **3 cr.**

Prerequisites: Econ 121 and 122.

Taxation and expenditure theory at federal, state, and local government levels; federal budget and debt considerations; public sector impact upon the economy; intergovernmental fiscal relations.

Econ 340 Economic Development **3 cr.**

Prerequisite: Econ 121, or Econ 101 if accepted in substitution.

The nature of economic growth in pre-industrial and industrial economies; empirical and theoretical study of long-term economic changes, including the level of national product, with special emphasis upon the problems of underdeveloped countries.

Econ 341 Economic Development of the United States **3 cr.**

Prerequisites: Econ 121 or 101 if accepted in substitution, and Hist 104.

Examination of the main patterns of America's economic growth since the end of the eighteenth century; emphasizes economic development as a laboratory for economic analysis.

Econ 342 Economic Development of Modern Europe **3 cr.**

Prerequisites: Econ 121 or 101 if accepted in substitution, and Hist 102.

Study of the dynamic economic forces which have contributed to the development of modern Europe; industrial revolution in England, industrialization on the continent; impact of Europe on the world economy.

Econ 343 Economics of Population and Manpower 3 cr.

Prerequisites: Econ 121 or 101 if accepted in substitution, and Math 362 or permission of instructor.

Inquiry into the economic, demographic, and related factors affecting the growth, structure, and distribution of an economy's population; historical and locational variations in manpower utilization rates; examination of the interrelationships among population, manpower utilization, and economic progress.

Econ 345 International Economics 3 cr.

Prerequisite: Econ 121, or Econ 101 if accepted in substitution.

Theory and practice in international trade; relationships of the United States and other major industrialized countries to the world economy as reflected in their balances of payments; trade barriers; international economic organizations; stabilization and growth in world finance.

Econ 350 Comparative Economic Systems 3 cr.

Prerequisite: Econ 121, or Econ 101 if accepted in substitution.

Capitalism, socialism, communism, and fascism subjected to economic analysis: their principles, practices, institutions, and philosophies.

Econ 355 Introduction To Econometrics 4 cr.

Prerequisites: Econ 121 and 122, Math 362.

The application of modern statistical methods to economic theory formulated in mathematical terms: elementary mathematical formulations; the nature of econometric models; demand, production, and cost analysis; income distribution, growth, and trade cycle models; macroeconomic applications.

Econ 360 Special Studies in Economics 2 cr.

Prerequisites: Econ 121, and 122, and junior or senior standing.

An intensive analysis of selected contemporary economic issues or problems.

Econ 390 Readings In Economics 1-2 cr.

Open only to economics majors of senior standing who have completed the departmental core and received explicit approval of the department chairman.

Readings, conferences, and reports arranged for the student who demonstrates a special interest and need in an area of economics not explored intensively in other departmental offerings. Readings may be scheduled in, but not limited to, advanced work in any of the elective areas plus agricultural economics, forecasting, national security economics, economic planning, social insurance, current economic literature, and the like.

EDUCATIONAL PSYCHOLOGY DEPARTMENT

EDWARD D. SHAFFER, Acting Chairman

ANTHONY ANGELONI
RICHARD O. DAVIS
LEONARD B. DeFABO
JOHN J. HAYS
WILLIAM J. LEVENTRY
JAY M. SMITH

PROFESSIONAL EDUCATION COURSES

Ed Psy 302 Educational Psychology
(Required of all Education Majors) **3 cr.**
Prerequisite: Psy 201.

A course designed to promote a better understanding of the principles of psychology that govern human behavior, with particular emphasis on their relation to the learning process, the learning situation, and the learner himself. The significance of evaluation, individual variation, group dynamics, and child growth and development will be stressed throughout the course.

Ed 305 Evaluation Methods **2 cr.**

This course includes elementary statistics concerning graphs, sampling, frequency distribution, averages, measures of central tendency and dispersion, and the normal curve. The course emphasizes the use and construction of tests made by the teacher, and the systems of reporting pupil growth and development.

Ed 362 Developmental Reading **3 cr.**

This course, planned especially for the teacher of secondary students, will assist the participating student to understand the developmental reading process. The study will include such areas as objectives, background knowledge and understandings of the reading process, an overview of the elementary program, the pre-adolescent and the adolescent and their needs in reading, finding and providing for instructional needs, and special problems. Specific helps, experiences, techniques, and materials will be considered.

It is suggested that the course be taken by secondary students just before the student teaching experience.

GENERAL ELECTIVES

Ed Psy 372 The Psychology of Childhood Education **3 cr.**
Prerequisite: Psy 201 or Ed Psy 302.

A course designed to emphasize the relationship which physical, social, emotional and intellectual development have on the theory and practice of childhood and pre-adolescent education. The course is designated to meet post-graduate certification requirements and serves as an elective for undergraduate students.

Ed Psy 373 Adolescent Psychology for Teachers **3 cr.**

Prerequisite: Psy 201 or Ed Psy 302.

This course is concerned with the study of the significant characteristics and behavior of adolescents with emphasis on developing an understanding of the relationship these factors have for educational and social problems which occur during this period of development. The course is designated to meet post-graduate certification requirements and serves as an elective for secondary education majors.

Ed Psy 376 Study of Problem Behavior **3 cr.**

Prerequisite: Psy 201 or Ed Psy 302.

This course explores the emotional and social aspects of behavior problems encountered in classroom situations. The assumption that behavior is learned and purposeful forms a basis for study in the course. This course will satisfy post-graduate certification requirements and serves as an elective for undergraduate students of teacher education.

Ed Psy 377 Educational Tests and Measurements **3 cr.**

Prerequisite: Psy 201 or Ed Psy 302.

A course which emphasizes an understanding of the various evaluation instruments with attention being focused on standardized tests. The use and interpretation of information and test results are studied in relation to educational problems which occur in the classroom. It satisfies post-graduate certification requirements and serves as an elective for undergraduate students of teacher education.

ELEMENTARY EDUCATION DEPARTMENT

P. D. LOTT, Chairman of Department

LOIS V. ANDERSON
RONALD L. BAKER
DENNIS A. BARTHA
ALBERTA R. DORSEY
RALPH M. GLOTT
JOSEPH A. KAZAMEK
ROBERT L. KING
MAY E. KOHLHEPP
JACK KUHNS
EDWARD R. MOTT
ANNA K. O'TOOLE
VIOLET V. ROCCO
JOANN E. WALTHOUR
GEORGE D. ZEPP

REQUIRED COURSES IN ELEMENTARY EDUCATION

El 211 Music for the Elementary Grades **2 cr.**

The content of this required course for all Elementary Students includes the following: review of music fundamentals, keyboard knowledge, the teacher's voice, care and development of the child voice, problems of the non-singer, rhythmic activities, listening activities, creative activities, rote to note process, special days, and lesson planning. To get practical application of class activities, students will be assigned observations in the Laboratory School. Emphasis is placed on the primary grades.

El 213 Art for Elementary Grades **2 cr.**

The creative growth and development of children are studied. Students are given experiences in the basic art materials and media, as well as opportunity to plan art motivations for children.

Psy 215 Child Development **3 cr.**

This course is designed to enable the teacher to understand and help children. A survey of human development from conception through early adolescence is made in terms of basic scientific data. Developmental growth and behavior are studied and their implications for home, school, and community are considered.

El 221 Children's Literature **3 cr.**

In this course the students acquire a wide acquaintance with children's literature, old and new. Poetry selections, annotated stories, and bibliographies will be assembled. Ways and means to develop, stimulate, and guide children's reading of literature are presented. Principles and techniques of successful story-telling are studied and practiced.

El 222 Teaching of Reading **3 cr.**

This course is given before the first student teaching experience. Emphasis is placed upon methods and materials used in the developmental reading program. Its objective is to provide the student with a general background of knowledge and techniques for teaching children in the elementary school to read. Students are introduced to the experience, textbook, and individualized reading approaches to the teaching of reading.

El 312 Teaching of Elementary Science **3 cr.**

Based on the previous work in science, this course takes up the planning and presentation of material suitable to the elementary field. Students are required to perform demonstrations and take part in science activities which illustrate facts or principles taught in the elementary science program. Considerable attention is given to the literature of the elementary science program as well as other aids such as community resources and simple equipment that can be secured for experimentation and other activities.

El 313 Teaching of Math in the Elementary School **3 cr.**

Prerequisite: Math 101.

In this course emphasis will be given to the place of arithmetic in the elementary school and to the recent changes in curriculum and method; to techniques for developing concepts and processes; to recent research in the field of arithmetic; and to books and material helpful to prospective teachers. Observation of master teachers at work will be planned.

El 314 Teaching of Health and Physical Education **2 cr.**

This course includes games, stunts, rhythms, relays, tumbling, dances, and skills suitable for the elementary school child. The teaching of health in the elementary school is emphasized. Methods, materials and lesson planning are a part of the course.

El 411 Teaching of Social Studies **3 cr.**

This course gives an overview of social studies in the elementary school. It includes study of objectives, trends, areas of content, patterns and principles of organization. Emphasis is placed on unification of subject matter and on implication of research in child development for content and methods. Students will have experience in preparing an individual resource unit and in planning, participating in, and evaluating social studies in class. A variety of learning experiences and materials will be used and evaluated.

El 413 Teaching Language Arts **3 cr.**

This course is designed to give the elementary student a knowledge of the latest techniques, methods, and materials in the language arts area. Research and trends are studied. The fields of handwriting, spelling, oral and written communication, and vocabulary development are included.

Ed 422 Professional Practicum Including School Law **2 cr.**

This course includes a series of conferences and related activities planned to prepare students for experiences which they will meet in teaching. It parallels the student teaching experience in the junior and senior years. Through these planned experiences, students are expected to be able: to know and understand Pennsylvania laws governing education; to discuss adequately problems related to teaching; and to know

and use materials of instruction and professional reference reading. A file of materials, required of each elementary student, is used during each student teaching experience and is checked during the senior year.

ELECTIVE COURSES IN ELEMENTARY EDUCATION

El 212 Teaching of Music in the Elementary Grades **3 cr.**
Prerequisite: El 211.

A continuation of skills and understandings as developed in El 211 is treated with emphasis on methods and materials for the upper grades. Additional opportunities for growth in music reading and part singing are provided. Lessons are developed in correlation of music with other areas. Type lessons are taught by students and constructively evaluated by the instructor and the class.

El 214 Teaching Art in Elementary Grades **3 cr.**
This course provides the student with a wide variety of two and three dimensional art experiences with the emphasis on a developmental sequence from simple to more complex variations of a craft. Emphasis is placed on the creative challenges of the art experience.

El 351 Creative Activities in the Elementary School **3 cr.**
This course is planned to provide the student with a wide range of creative experiences in the fields of art, crafts, music, rhythmics, dramatics and games in the elementary school. Stress is placed upon the need to help children in developing their capacities for creative expression in these areas.

El 352 Diagnostic and Remedial Reading **3 cr.**
This course is planned for in-service teachers and students who have done their student teaching. It deals with methods and materials which help children who are retarded in reading ability. Attention is given to recent findings in the areas of reading readiness, word recognition including phonics, comprehension, evaluation, and textbook selection.

El 353 Pre School Education **3 cr.**
Students in this course will be mainly concerned with the five-year-old in kindergarten. Principles and practices of this age group will be studied. Special attention will be given to observations, the kindergarten program and its curriculum, materials, and methods of instruction.

Ed 356 Guidance in Elementary Schools **3 cr.**
This course is designed to give the student an initial understanding of the guidance of young children. Study and discussion center around the child himself — his characteristics, needs, problems, motives, and relations with others — and around the techniques and procedures for identifying, studying, and giving help to children in respect to these facets of personality.

El 451 Teaching of Reading in the Primary Grades 3 cr.
This course is concerned with the teaching of developmental reading, consistent with child growth, in the primary grades.

Methods and techniques for readiness, word perception, comprehension, work-study skills, independent reading in both group and individualized approaches will be studied.

Consideration will be given to the nature of reading, significant research in the field, the curriculum, selection of materials and the use of formal and informal tests.

El 452 Social Studies in the Primary Grades 3 cr.
With El 411, Teaching of Social Studies, as a prerequisite, this course will include a more detailed examination of content, objectives, and resource materials for social studies in kindergarten through third grade. Research problems will be examined and representative units developed.

El 461 Organization of the Elementary School and Its Curriculum 3 cr.
A study of the organization of the elementary school from the standpoint of curriculum design and development. The role of the teacher will also be examined as it relates to the evaluation, improvement, and development of the elementary school curriculum. This course is especially designed for the post graduate.

El 462 Innovations in Elementary Education
A study of innovations which influence and direct the educational objectives of the modern elementary school and its organization. Particular attention will be given to those educational innovations dealing with curriculum, school organization, and materials of instruction. This course is especially designed for the post graduate.

Ed 461 Workshop in Elementary Teaching 3 cr.
Designed for in-service teachers and those returning teachers who are working with the elementary school child, this course provides for reorientation and investigation of the subject matter, materials, methods and procedures currently used in the elementary classroom. Emphasis will be placed upon observation of methods and procedures used in the Keith School; examination of materials; practice in the selection, organization and preparation of subject matter in unit and lesson plans; and construction of teaching aids useful in the participant's own classroom.

ENGLISH DEPARTMENT

JAMES R. GREEN, Chairman of Department

EDWARD ANDERSON
MARGARET BECK
WILLIAM BETTS
JESSIE BRIGHT
L. J. BRIGHT
MORRISON BROWN
MARGARET CALDWELL
DAVID COOK
HARRY CRAIG
BOB J. CUREY
JOHN DAVIS
JUNE EASTMAN
DONALD EISEN
ROBERT ENSLEY
JULIAN FICKLEN
JOSEPH FLAMM
WILLIAM FORCE
DONALD FRITZ
ELIZABETH FRANK
DOROTHY GOURLEY
WILLIAM GRAYBURN
DONALD GRUBB
HARRY HALDEMAN
WAYNE HAYWARD
RICHARD HAZLEY
JACKSON HEIMER
RAYMONA HULL
LAWRENCE IANNI
MERLE LENTZ
DOROTHY LUCKER
CHARLES MAHAN
LAURABEL MILLER
ANTHONY NANIA
JAMES NIX
MARGARET OMRCANIN
RICHARD RAY
MAURICE RIDER
GERTRUDE RITZERT
ROSALY ROFFMAN
PHYLLIS ROUMM
PHILLIP RUFFNER
GEORGE SEACRIST
FREDERICK SEINFELT
CATHERINE SHAFFER
HELENA SMITH
GERALD STERN
CRAIG SWAUGER
FORD SWIGART
RAYMOND THOMAS
JAMES WADDELL
HELEN WARREN
JOHN WATTA
KATHRYN WELDY
KENNETH WILSON
DON WOODWORTH

GENERAL EDUCATION

Both courses required of all students

Eng 101 English I — 4 cr.

Eng 102 English II — 4 cr.
(Prerequisite: Eng 101)

One course required of all students

Eng 201 Literature I: Tragic Themes in Literature — 2 cr.
(Prerequisite: Eng 102)

Eng 301 Literature II: The Literature of Social Criticism — 2 cr.
(Prerequisite: Eng 102)

Humanities option (May be substituted for Introduction to Art or Introduction to Music)

Eng 103 Introduction to Theater — 3 cr.

The following two courses may be elected as humanities electives in general education

Eng 261 The English Bible As Literature — 3 cr.
Eng 271 Modern American Fiction — 3 cr.

Eng 101 English I — **4 cr.**

English I, a basic required course for all students, should be taken in the first semester of study at Indiana University of Pennsylvania. Seven theme-length expository papers are written during the semester in addition to shorter exercises and a written final examination. The program for the course is based on readings in the nature and history of language, language analysis, and problems in rhetoric, in order to develop

competence in those language skills necessary for successful college study. Students are encouraged to confer with their instructors throughout the semester about their writing problems. Exemption is not granted from English I for a student who has completed a high school Advanced Placement English course.

Eng 102 English II **4 cr.**

English II, the second required general education English course, may be taken after a student has received a passing grade in English I. Readings in imaginative literature continue the development of language skills begun in English I, with the writing of at least four long papers, including a research exercise based on a literary or other source book. Exemption from English II may be granted on the recommendation of the English I instructor, who will supervise the completion of a research paper by independent study of the exemptee.

Eng 103 Introduction to Theater **3 cr.**

This course explores the place of the theatre in the life of man, with a critical appreciation of the various arts and skills involved. Emphasis is on the creative function of the audience.

Eng 133 Newspaper Reporting **3 cr.**

This course is open to first-year and second-year students in any department who either work or aspire to work on the university newspaper staff. The course includes instruction in writing the news story, preparing copy, interviewing, covering special events and similar reporting activities.

Eng 201 Tragic Themes in Literature **2 cr.**

The aims of this course are twofold: to introduce the student to one of the main thematic preoccupations of western literature, and to stimulate the student's desire to read on his own initiative. The literary works are drawn from the three major genres: poetry, drama, and prose fiction.

Eng 211 Classical Literature **3 cr.**

A course for English majors that replaces Eng 301 Introduction to Literature. The masterpieces studied range from those of ancient Greece to the Middle Ages. English literature and American literature are excluded.

Eng 212 American Literature to 1865 **3 cr.**

This course provides a study of major American writers from colonial times to the Civil War.

Eng 213 Pre-Renaissance **3 cr.**

Beowulf, Chaucer's **Canterbury Tales**, the Middle English lyric, the popular ballad, and the Arthurian romance are studied in this course.

Eng 214 Shakespeare 3 cr.
Shakespeare's development as a poetic dramatist is studied against the background of the Elizabethan stage; the audience, textual problems, language, imagery, and philosophy are examined. A few plays are read in detail and others are assigned for rapid reading. Phonograph recordings of complete plays, and of scenes and speeches by professional actors are used.

Eng 215 The Augustans 3 cr.
By an examination in some detail of the major poems of Dryden and Pope, of the major prose of Swift, Addison and Steele, and of selected works of a few minor writers, this course concerns itself with Augustan concepts of literature and morality.

Eng 216 The Romantic Movement 3 cr.
Basic tenets of Romantic philosophy are examined as they are expressed in the major writings of the period from 1780-1832—poetry, the essay, and fiction. Special attention is given to the aesthetic creed of the Romantic poets and to the means of interpreting and evaluating their poems.

Eng 217 Victorian Literature 3 cr.
Essays, novels, and poetry of the second half of the nineteenth century are read with special consideration of the criticism they offer of political, economics, social, and religious practices and creeds of Victorian England.

Eng 218 The Age of Spenser 3 cr.
This course surveys the non-dramatic literature of the English Renaissance, with particular emphasis on the poetry of Spenser. Some attention will be paid to both Elizabethan critical theory and classical and continental backgrounds.

Eng 219 The Age of Milton 3 cr.
This course includes a brief reading of the later metaphysical poets and cavalier poets with concentration on the major poems of John Milton. Some attention is given to the religious and political conflicts of the time as they are reflected in both prose and poetry.

Eng 221 Journalistic Writing 3 cr.
This course places special emphasis upon the writing of the news story, the column, the feature, and the editorial. Some attention is given to college and school publications and to make-up and editorial policy. May be substituted for Eng 222.

Eng 222 Advanced Composition 3 cr.
This course primarily seeks to improve writing style, particularly in the more utilitarian forms such as the magazine article and the personal essay. Opportunity is offered also for developing creative ability in the more imaginative types such as the short story, the one-act play, and poetry. The student is expected to develop artistic sensitivity in handling and judging language and literary forms.

Eng 223 Creative Writing **3 cr.**
Prerequisite for admission to this course is demonstrated ability and interest in creative writing. May be substituted for Eng 222. This is a seminar course in which the kinds of writing done are chosen in line with the special interests and abilities of each student after consultation with the instructor.

Eng 224 The Metaphysical Poets **3 cr.**
The primary objective of this course is to promote a critical understanding of the work of the Metaphysical Poets from Donne to Marvell. Some attention will also be paid to the cultural milieu which gave rise to the **genre;** i.e., poetic archetypes and the rise of British empiricism.

Eng 231 The Dramatic Arts **3 cr.**
This course will deal with the basic problems that confront a director of plays in high school. The course will study the principles of play selection, rehearsal procedures, scenic demands, and all other aspects pertinent to a successful production.

Eng 232 Oral Reading **3 cr.**
Study and practice is given in the fundamentals of oral reading, beginning with the nature and function of the speech mechanism, speech production, and pronunciation with some attention to both phonetic and phonemic analysis.

Eng 238 The Nature of Drama **3 cr.**
A study of selected plays of various styles and periods to gain greater understanding and appreciation of the art of drama.

Eng 240 Rise of the English Novel **3 cr.**
This course will survey the development of the English novel from its forerunners through the fiction of the Gothic romanticists and Jane Austen. Works such as the following will be read and discussed: **Moll Flanders, Joseph Andrews, Tom Jones, Humphry Clinker, Tristram Shandy,** and **Mansfield Park.**

Eng 242 The American Novel **3 cr.**
Novels, ranging from Hawthorne to contemporary pieces of fiction, are read to trace the rise and development of the American novel.

Eng 243 Contemporary Short Fiction **3 cr.**
In this course attention is given to the form, the structure, and the art of the modern short story, British, American, and Continental.

Eng 244 Poetry and Its Forms **3 cr.**
This course offers a study in the appreciation of poetry, with special attention to the technique of the poet and the structure of poetry.

Eng 245 Modern Drama 3 cr.
The reading of plays will start with Ibsen and other Scandinavian dramatists, followed by plays by outstanding Continental, British, and American playwrights such as Becque, Chekhov, Pirandello, Wilde, Shaw, O'Casey, O'Neill, Williams, and Miller.

Eng 246 American Literature Since 1865 3 cr.
This course provides a study of major American writers from the Civil War to the present.

Eng 248 The Age of Johnson 3 cr.
This course, while it emphasizes the art and criticism of Samuel Johnson as revealed in his writings and Boswell's **Life,** also examines a number of minor writers as philosophical and artistic innovators.

Eng 251 The History of the English Language 3 cr.
The historical development of the English language is studied as a basis for a better understanding of modern American English. An examination is made of changes in sound, vocabulary enrichment from various sources, and changes in syntax and usage. The course is open to students from all departments and curricula, but is especially recommended to elementary majors and English majors.

Eng 261 The English Bible as Literature 3 cr.
This course will consider the literary aspects of the English Bible by relating earlier translations to the Authorized Version of 1611 and by tracing some of the major influences of the King James Bible upon the writers and speakers of modern English. This course may be used as an elective in the humanities area of the general education program.

Eng 271 Modern American Fiction 3 cr.
Major American writers of fiction since 1900 will be considered in this course. This course may be used as an elective in the humanities area of the general education program.

Eng 301 The Literature of Social Criticism 2 cr.
This course focuses primarily on the satiric and comic modes, although reflective essays may also be included if their major concern is social criticism. An attempt has been made to select works which reflect the social attitudes of most of the major periods of Western thought from Plato to Bertrand Russell. Selection has been made from all major literary genres.

Eng 351 English Drama to the Restoration 3 cr.
This course traces the development of English drama from 900 to the closing of the theatres in 1642, but does not include the plays of Shakespeare.

Eng 353 Restoration Literature **3 cr.**
The history of the drama between 1660 and 1710 is presented through the study of the major plays of the period. The influence of the audience on the playwright's style and actor's technique is demonstrated.

Eng 355 Modern European Literature **3 cr.**
The study of selected works of dramatic and non-dramatic literature of influential continental writers from the eighteenth century to the present.

Eng 356 The English Essayists **3 cr.**
The major essayists are seen both as members of and influence on the society of their time. Emphasis is given to a study of the individual styles of the writers by employing a close textual analysis.

Eng 357 The English Novel: Conrad to the Present **3 cr.**
A study of important twentieth century novels—including works by Conrad, Lawrence and Joyce—from about 1900 to recent times.

Eng 358 Criticism of Contemporary Writing **3 cr.**
This course considers recent trends in literary criticism by examining statements of critical principles in the writings of influential twentieth century critics and by applying these standards of evaluation to current literary productions. Not open to freshmen and sophomores.

Eng 359 Seminar in English Studies **3 cr.**
Individually assigned readings and discussions to provide a comprehensive knowledge of the major figures and periods of English literature. Basic bibliographical sources will be used for several long documented papers. Restricted to senior English majors.

Eng 241 Nineteenth Century English Novel **3 cr.**
This course traces the historical and technical development of the novel from Scott to Hardy. Included will be such authors as Dickens, Thackeray, Trollope, the Brontes, and Eliot.

Eng 363 The Structure of English **3 cr.**
Training is given in the analysis of modern English by the methods and materials of structural linguistics. An elementary study of phonology and morophology is used as the basis for describing the patterns of the statement, substitution within patterns, the word classes, inflection, and structure words, as well as varieties of modern American English usage. This course is a prerequisite to Ed 451, Teaching English and Speech in the Secondary School.

Eng 364 Trends in Linguistics 3 cr.
This course explores recent developments in linguistic theory and research. The subject matter will be selected in an effort to expose the student to the work of major contemporary linguists and allied scholars who are concerned with enlarging man's knowledge about language. No pre-requisite required.

Eng 371 Directing and Play Production 3 cr.
This course affords each student the opportunity to select, cast, rehearse, and produce a one-act play. Included are suggestions on how to improvise for meeting the demands of small stages.

Eng 377 Creative Dramatics and Story Telling 3 cr.
This course, through workshop experience, stresses creative dramatics as a way of teaching for adults, a way of learning for children in both the elementary and secondary schools. It emphasizes the student planning, acting, and evaluating techniques as they apply to unscripted, spontaneous dramatic expression. As a preliminary to creative dramatics, students learn various techniques in story telling.

Eng 378 Costume and Make-up 3 cr.
This course deals with the practical application of straight and character make-up. Emphasis on costuming to show how mood and illusion can be created through proper selection of style, color, and texture of materials.

Eng 379 Stagecraft and Scenic Design 3 cr.
Theories and techniques of designing, building, and painting, of stage settings; organization and operation of production crews.

Eng 381 Fundamentals of Acting 3 cr.
This course gives attention to theory and practice in the techniques of acting. It introduces styles of acting as related to dramatic forms, with emphasis on stage movement and voice projection.

Eng 469 Oral Interpretation 3 cr.
This course emphasizes the understanding and appreciation of literature through developing skill in reading aloud. Special attention is given to selecting, adapting, and preparing material for presentation in high school classes.

Eng 472 Public Speaking 3 cr.
Fundamental principles of public speaking, audience analysis, interest and attention, selection and organization of speech material, and delivery are taught in this course. Practice in preparation and delivery of extemporaneous speeches will be provided for.

Ed 451 Teaching of English, Speech and Reading in the Secondary Schools **3 cr.**

Eng 363 is a prerequisite to this course, and this course is in turn a prerequisite to student teaching in English.

This course introduces the student to the current professional practices in the teaching of English in high school. Background for competence in teaching is provided through (1) study of professional literature, (2) individual reports, (3) writing of unit plans and lesson plans, (4) observing teaching in high school classes, (5) participating in class demonstrations, and (6) building a professional file of instructional materials.

FOREIGN LANGUAGES DEPARTMENT

HERBERT F. ISAR, Chairman of Department

EDWARD W. BIEGHLER
MARGARET BIEGHLER
KENNETH W. BRODL
SHOW-CHIH RAI CHU
EDITH M. CORD
LEONARD B. DeFABO
CHARLES W. FAUST
FERNAND FISEL
WERNER J. FRIES
MANUEL GARCIA
HELEN PAZ-GARCIA
ANTONIO M. GUARDIOLA
AURORA P. GUARDIOLA
ISOLDE A. HENNINGER
WILLIAM J. HENZELMAN
FRANK E. LANDIS
ARTHUR A. LEONE
CHARLOTTE LEVENTHAL
ONEIDA I. LOZADA
GEORGE R. MILTZ
IVO OMRCANIN
LUDO OP DE BEECK
HELEN PAZ-GARCIA
BERNARD ROFFMAN
DAVID L. SHIELDS
ANTHONY J. SORENTO
ANDREE-MARIE SRABIAN
ROGER N. WILLIAMS

COURSES IN THE GENERAL EDUCATION PROGRAM

Chi 151-152 Chinese I and II	3 cr. each
Fr 151-152 French I and II	3 cr. each
Ger 151-152 German I and II	3 cr. each
Grk 151-152 Greek I and II	3 cr. each
Lat 151-152 Latin I and II	3 cr. each
Port 151-152 Portuguese I and II	3 cr. each
Rus 151-152 Russian I and II	3 cr. each
Sp 151-152 Spanish I and II	3 cr. each

This elementary sequence is designed primarily for the student who will complete a two-semester course only or has not had the language in question in high school. Its basic objective is accuracy of pronunciation and to develop the ability to read, write, speak, and understand the basic elements of the language under study, with emphasis on the people and customs of the country or countries concerned. These courses may not be taken for credit by students who have completed a two-year sequence in high school.

Chi 251-252 Chinese III and IV	3 cr. each
Fr 251-252 French III and IV	3 cr. each
Ger 251-252 German III and IV	3 cr. each
Lat 251-252 Latin III and IV	3 cr. each
Rus 251-252 Russian III and IV	3 cr. each
Sp 251-252 Spanish III and IV	3 cr. each

This sequence is designed for students who have had two years of the language in high school or one year in college, and continue in the same language, either to fulfill a language requirement or for specialization. The course is a systematic review of grammar and an intensive study of cultural texts, incorporating discussions and written exercises. Material of literary and cultural interest will be studied, and strong emphasis is given to the development of oral skills. Majors in French, German, Russian, and Spanish must take 053 and 054 concurrently; non-majors are invited to do so if they desire and their schedules permit work in the language laboratory.

Courses Required in French, German, Russian, or Spanish

Fr 051-052 Oral Practice I and II	**2 cr. each**
Ger 051-052 Oral Practice I and II	**2 cr. each**
Rus 051-052 Oral Practice I and II	**2 cr. each**
Sp 051-052 Oral Practice I and II	**2 cr. each**

This laboratory sequence introduces the phonetic structure of the language, and encourages automatic response to recurring basic phrase units through constant oral drill. Majors must take this sequence concurrently with 151-152.

Fr 053-054 Oral Practice III and IV	**2 cr. each**
Ger 053-054 Oral Practice III and IV	**2 cr. each**
Rus 053-054 Oral Practice III and IV	**2 cr. each**
Sp 053-054 Oral Practice III and IV	**2 cr. each**

This advanced laboratory sequence is a continuation of 051-052, and carries oral skills to a higher level. It must be taken concurrently with sequence 251-252.

Fr 351-352 Advanced French Language	**3 cr. each**
Ger 351-352 Advanced German Language	**3 cr. each**
Lat 351-352 Advanced Latin I and II	**3 cr. each**
Rus 351-352 Advanced Russian Language I and II	**3 cr. each**
Sp 351-352 Advanced Spanish Language I and II	**3 cr. each**

This sequence reviews and supplements the grammar of earlier courses, and aims toward a systematic analysis of the structure of the language. Some attention is given to the historical background of the language, particularly those phases which lie beyond apparent irregularities and anomalies. Frequent original themes are required in the second semester.

Fr 055-056 Advanced Oral Practice I-II	**1 cr. each**
Ger 055-056 Advanced Oral Practice I-II	**1 cr. each**

Rus 055-056 Advanced Oral Practice I-II 1 cr. each

Sp 055-056 Advanced Oral Practice I-II 1 cr. each

These are relatively informal conversation courses which the student majoring in the language must take concurrently with the courses numbered 351-352, meeting two periods per week but not in the language laboratory.

Fr 361-362 Development of French Culture and Literature I and II 3 cr. each

Ger 361-362 Development of German Culture and Literature I and II 3 cr. each

Rus 361-362 Development of Russian Culture and Literature I and II 3 cr. each

Sp 361-362 Development of Hispanic Culture and Literature I and II 3 cr. each

This course sequence examines the historical and cultural aspects of the countries involved, reviews their characteristic contributions over the centuries, and analyzes the relationship of each literary school to the moment which produced it.

Ed 451 Teaching of Foreign Languages in the Secondary School 3 cr.

Prerequisite: Successful completion of 351-352 in whatever Language is taken.

The objective of this course is to prepare teachers of modern foreign languages for the modern high school. It considers methods and materials of instruction, current theories and techniques, and requires preparation and presentation of illustrative units. Training in the administration of the language laboratory constitutes a significant part of the course.

Elective Courses in French

Fr 253 Intermediate Composition and Conversation 3 cr.

This course, usually reserved for the main summer session, has as its prerequisite a minimum of one year of college French.

Fr 291 Special Projects I 1-3 cr.

Fr 391 Special Projects II 1-3 cr.

These courses are planned to satisfy the special needs of an individual or a group as they may arise.

Fr 365 Seventeenth Century French Literature 3 cr.

Fr 366 Eighteenth Century French Literature 3 cr.

Fr 367 Nineteenth Century French Literature 3 cr.

Fr 368 Twentieth Century French Literature 3 cr.

These courses are designed to present general surveys of the literature of their respective periods, with due consideration of the social factors and events behind them.

Fr 371 The French Novel **3 cr.**
This course constitutes a coherent survey of the origin and development of the French novel. A selected list of works representative of the major modes are read in their entirety.

Fr 372 Studies in Contemporary French Literature **3 cr.**
The content of this course will vary in accordance with the needs and interests of those who will elect it.

Elective Courses in German

Ger 253 Intermediate Composition and Conversation **3 cr.**
This course, usually reserved for the main summer session, has as its prerequisite a minimum of one year of college German.

Ger 256 Scientific German **3 cr.**
Prerequisite: completion of German 251-252 or equivalent.
This course is designed to meet the needs of students specializing in the Natural Sciences, and will normally be offered during the main summer session if the demand justifies the offering of such a course.

Ger 291 Special Projects I **1-3 cr.**

Ger 391 Special Projects II **1-3 cr.**
These courses are planned to satisfy the special needs of an individual or a group as they may arise.

Ger 363-364 Introduction to German Literature I and II 3-6 cr.
Selected readings in German poetry, drama, and fiction. The aim of the course is to acquaint the student with some techniques for intelligent understanding and formal criticism of works of literature.

Ger 367 Nineteenth Century German Literature **3 cr.**

Ger 368 Twentieth Century German Literature **3 cr.**
These courses are designed to present general surveys of the literature of their respective periods, with due consideration of the social factors and events behind them.

Ger 370-371 The Age of Goethe I and II **3-6 cr.**
Selected readings to demonstrate the antecedents and accomplishments of the Golden Age of German letters, 1750-1832.

Elective Courses in Russian

Rus 291 Special Projects I **1-3 cr.**

Rus 391 Special Projects II **1-3 cr.**
These courses are planned to satisfy the special needs of an individual or a group as they may arise.

Rus 367-368 Nineteenth Century Russian Literature I and II 3-6 cr.

Rus 369-370 Twentieth Century Russian Literature 3-6 cr.
These courses are designed to present general surveys of the literature of their respective periods, with due consideration of the social factors and events behind them.

Rus 371 Russian Poetry 3 cr.
A survey of Russian poetry from the eighteenth century to the present with particular emphasis on Pushkin and Lermontov.

Rus 372 Russian Drama 3 cr.
The theater in Russia from Fonvizin to Chekhov and Stanislavsky.

Elective Courses in Spanish

Sp 253 Intermediate Composition and Conversation 3 cr.
This course, usually reserved for the main summer session, has as its prerequisite a minimum of one year of college Spanish.

Sp 291 Special Projects I 1-3 cr.

Sp 391 Special Projects II 1-3 cr.
These courses parallel Fr 291 and 391, q.v.
Sp 391 is devoted to a special aspect or figure of Spanish literature.

Sp 365 Spanish Literature Before 1650 3 cr.

Sp 367 Nineteenth Century Spanish Literature 3 cr.

Sp 368 Twentieth Century Spanish Literature 3 cr.
These courses are designed to present general surveys of the literature of their respective periods, with due consideration of the social factors and events behind them.

Sp 370 Golden Age Drama 3 cr.
This course traces the development of the Spanish theater and examines its flowering in the Baroque period.

Sp 371 The Spanish Novel 3 cr.
After a brief survey of the origins and course of the Spanish novel major stress is given to the novel of the nineteenth century and the Generation of 98.

Sp 376 Spanish-American Literature 3 cr.
Following a consideration of the salient tendencies of Spanish-American literature, this course may take the form of a comprehensive survey, or it may concentrate its attention upon the recent novel of social thesis.

Sp 390 Spanish in the Elementary School **3 cr.**

Prerequisites: Sp 251-252.

In this course the prospective teacher of Spanish on the elementary level is introduced to materials suitable for grades 1-6. Much time is devoted in the language laboratory to the preparation of games, songs, poems, and story telling.

LINGUISTICS

Ling 421 Language and Society **3 s.h.**

The work of this course is designed to inform the student as to the salient facts of language and its fundamental role in the development and continuity of society and culture. Some points considered are: language families and their characteristics, factors of linguistic change and development, reciprocal influences of culture and language, linguistic borrowing, language and religion, and systems of writing.

FOUNDATIONS OF EDUCATION DEPARTMENT

HAROLD J. YOUCIS, Chairman of Department

DON-CHEAN CHU
MEARL F. GERHEIM
JOHN E. MERRYMAN
RAYMOND E. MILLER
PAUL A. RISHEBERGER

PROFESSIONAL EDUCATION COURSES

(Required of all Students in Education)

Ed 302 History and Philosophy of Education 3 cr.
This course is designed to promote a clearer understanding of the modern educational system through a study of historical changes in instructional processes and ideas underlying it. Through the emphasis placed upon the study of educational beliefs and points of view, the course seeks to foster critical thinking which will lead to better judgement about the role of the school in our social structure, the meaning of democracy, the teacher and his profession, and the methods and objectives of the school.

Ed 422 School Law 2 cr.
This course aims to provide an interpretation of school law as it directly pertains to the needs of the teacher.

GENERAL ELECTIVES

(These courses are open to juniors and seniors)

Ed 454 Public School Administration 3 cr.
The course is designed to acquaint the teacher with the administration and organization of the American public school. Attention is given to the cultural role of the schools. Treatment is given to decision-making in the operation of the schools and the total task of school operation with the emphasis on what should be done. The functions and methods of all professional personnel in the operation and improvement of the schools will be considered.

Ed 455 Comparative Education 3 cr.
A brief study of historical backgrounds in education followed by an examination of contemporary educational systems in Eastern and Western civilizations.

Ed 456 Issues and Trends in Education 3 cr.
The purpose of this course is to survey the basic issues and problems confronting public schools, followed by an examination of innovations, trends, and the new approach in the American schools.

Ed 457 Secondary School Curriculum 3 cr.
This course will study the social diagnosis for curriculum development, curriculum principles and procedures, patterns of organization, and curriculum issues.

GEOGRAPHY DEPARTMENT

THOMAS G. GAULT, Department Chairman

MAMIE L. ANDERZHON
DONALD J. BALLAS
FRANK J. BASILE
GEORGE KURIYAN
ISADORE R. LENGLET
JAMES E. McCONNELL
VINCENT P. MILLER
JAMES E. PAYNE
PAUL A. PRINCE
ROBERT N. THOMAS
CHARLES E. WEBER
DAVID C. WINSLOW
SUSAN WOOD
MAURICE M. ZACUR

Foundation Geography Courses

Geog 101 World Geography **3 cr.**

Geog 101 or Geog 153 are prerequisite to all other geography courses. The purpose of this course is to develop a knowledge and appreciation of patterns of natural environment throughout the world, with special emphasis on man's adjustment to these environments. Understanding and appreciation of man's interrelationship with the earth are accomplished through the study of the physical, cultural, economic, and demographic factors.

Geog 149 Economic Geography **3 cr.**

Prerequisite: Geog 101, 151, or 153.

Economic Geography is designed to promote geographic and economic concepts, methods, and skills pertinent to the understanding of the spatial variation of production, consumption, and exchange over the earth's surface.

Geog 154 Cultural Geography **3 cr.**

Prerequisite: Geog 101, 151, or 153.

The geographical aspects of population, settlement, ethnogeography, and the cultural landscape are studied. The course considers the relationships of various ethnic and cultural groups to the natural environment. The student is acquainted with the tools, philosophy, and literature of cultural geography and related disciplines.

Geography-Earth Science Courses

Geog 151 Earth and Space Science **3 cr.**

This course may not be taken by majors or minors.

Spatial relationships in the universe, origin of the earth, structure and composition of land masses, the nature of oceans, the face of the land and water surfaces, the activities of the atmosphere are given special attention. This survey course is designed to give the non-major or non-minor an introduction to the physical environment wherein he lives.

Geog 153 Physical Geography **3 cr.**

May be taken in lieu of Geog 101.

Physical Geography introduces (1) the natural factors of

the landscape as studied by the geographer; weather, climate, soils, rocks, minerals, structure of the earth's crust, the oceans; and (2) the tools of geography: globes, maps, aerial photographs.

Geog 240 Elements of Weather and Climate **3 cr.**
Prerequisite: Geog 101, 151, or 153.
The elements of weather and climate, and the climatic regions of the earth are studied. Understanding and application are underscored in the laboratory.

Geog 241 Climatology
Prerequisite: Geog 101, 151, or 153.
Physical aspects of climatology. Topics covered: heat and water budget; climatic classification systems; paleoclimates; regional climates of the continents; selected microclimates; climate change in space and time; statistical and mathematical models.

Geog 246 Physiography I **4 cr.**
Prerequisite: Geog 151, 153, or Geology.
This course studies the form of the earth's crust and its associated water bodies; classification, distribution, processes involved in their geomorphological development, and effect upon the human landscape.

Geog 248 Composition and Structure of Earth's Crust **4 cr.**
Prerequisite: Geog 101, 151, or 153.
This course treats the nature and properties of the materials composing the earth, the distribution of these materials over the earth's crust, the processes by which they are formed, altered, transported, and distorted. It also considers the nature and development of the landscape and its economical use. Laboratory experiments make learning more meaningful.

Geog 255 Cartography **3 cr.**
Cartography gives an understanding in the compilation and use of maps and develops an ability to construct economic and geographic maps. The use of aerial photographs is treated briefly.

Geog 346 Meteorology I **4 cr.**
Prerequisite: Geog 101, 151, or 153.
Introduction to meteorological sciences. Composition and structure of the atmosphere. Radiation principles. Elementary thermodynamics and heat balance. Cloud physics. The meridional, zonal, and teritary circulations. Air masses, fronts and storm structure. Common instruments in use. Elementary weather map reading and forecasting techniques. Lectures, readings, and laboratory.

Geog 347 Meteorology II **4 cr.**
Prerequisite: Meteorology I.
An introduction to physical, dynamical and theoretical

meteorology. Hydrodynamic equations of motion. Circulation and vorticity. Atmospheric turbulence. Energy transformations in the atmosphere. Examination of circulation theories. Fluid dynamics. Lectures, readings and a term paper.

Geog 351 Introduction to Oceanography **4 cr.**

Prerequisite: Geog 101, 151, or 153.

An introduction to the physical, chemical, geological and biological nature of the ocean. Topography, submarine geology and bottom deposits. Water masses and their circulation. Common instruments in use. Dynamical aspects of waves, tides, and currents. Elementary discussion of the principles of oceanic mechanics, dynamics and thermodynamics. Economic problems of the sea. Lectures, reading, term paper and laboratory.

Geog 452 Conservation-Resource Use **3 cr.**

Prerequisite: 9 hours of geography.

A comprehensive survey of conservation in natural and human resources. It stresses regional understanding; accomplished through inventory, planning and utilization evaluation. Field work, workshop activities, projects, and use of resource specialists are an integral part of the course.

Geog 464 Field Techniques in Earth and Space Science **3 cr.**

Prerequisite: 12 s.h. in Earth Science/Geography.

Field techniques will acquaint the student with the tools of Earth and Space Science. It will provide first-hand experiences in the field with geology, meteorology, hydrology, soil, conservation, and astronomy.

Geog 422 Aerospace Science **3 cr.**

Prerequisite: Geog 101, 151, or 153.

A seminar conducted by a number of visiting aerospace authorities. It treats of the atmosphere and space environment; history of light and flight problems; satellites and space probes; manned orbital and space exploration projects; propulsion, communication, and other systems. Problems of teaching and bibliography at the various elementary and secondary levels will be considered. An indoctrination flight in a small craft and field trips to air age installations and projects fortify learning.

Regional Geography Courses

Prerequisite for all regional courses is 101, 151, or 153 except as noted.

Geog 251 Geography of Anglo-America **3 cr.**

A regional study of the United States and Canada concerned with the investigation of man's adjustment to his environment as influenced by the physical factors of climate, vegetation, relief soils, and natural resources as well as recog-

nition of cultural adjustments to the geographic environment, and the interrelations between the two countries and the rest of the world. **(This course may not be taken if the student has completed Geog 112.)**

Geog 252 Geography of Pennsylvania **2 cr.**
Prerequisite: Geog 251.
The topography, climate, natural vegetation, natural resources, population, agriculture, manufacturing, mining, etc., are treated. Internal and external relationships are studied to gain an insight into the various regions of the state and Pennsylvania's world relationships.

Geog 256 Geography of Europe **3 cr.**
This regional course aims to help students acquire the ability to find and apply geographic relationships underlying land use, dominant international problems, boundary disputes and the regional complexes of the European continent. Special attention is paid to the natural and cultural patterns as developed in modern times.

Geog 257 Geography of U.S.S.R. **3 cr.**
Special emphasis is placed upon the major geographic regions of the Soviet Union. Human adjustment to the physical environment of the various regions is given major consideration. Natural resources, cultural patterns, population — both numbers and distribution, strategic areas and related geopolitical problems are studied.

Geog 261 Geography of Far East **3 cr.**
This study of Korea, Manchuria, Outer Mongolia, Japan, and China involves an intensive investigation of the natural factors and man's adjustment to them. This is accomplished through the study of the geographic, economic and political regions of eastern Asia. The geographic background needed in planning solution for raising the standards of living, for the wise use and restoration of natural resources, and the industrialization of countries as presented.

Geog 262 Geography of South & Southeast Asia **3 cr.**
India, Pakistan, Indochina, Ceylon, Burma, Thailand, and Indonesia are the major areas studied. Students are given an understanding of the geographic relationships that effect land use, land reform, population, industrialization, nationalism, and boundary disputes. Special attention is given to regional similarities and differences, particularly as they pertain to human adjustment.

Geog 263 Geography of North Africa and Southwest Asia **3 cr.**
This study of the countries north of and including the Sahara Desert in Africa, Turko-Arabian peninsulas and Afghanistan in southwest Asia emphasizes the critical problems of water supply, land use, over-population, industrialization,

resources and the relationships of these countries to other parts of the world.

Geog 271 Geography of South America **3 cr.**
A regional study is made of South America with special emphasis placed on regional differences and similarities. South America relations with other areas, especially the United States, are stressed. The unique problems of South America, with special attention to tropical land use are considered.

Geog 272 Geography of Middle America **3 cr.**
The regional method is applied to Mexico, Central America and the West Indies. Similarities and differences are noted both in the cultural and natural landscapes. Special emphasis is placed upon cultural relationships and problems evolved from international commerce and trade. The effects of the United States economy upon these areas, are given serious attention.

Geog 281 Geography of Africa, South of Sahara **3 cr.**
This course begins with a systematic study of the physical, cultural, and historical geography of the continent. The systematic background is followed by studies of the major regions and nations of Africa, emphasizing political, cultural, and economic factors in the development of that continent.

Geog 291 Geography of Australia and Pacific Islands **2 cr.**
Australia, New Zealand, and the Pacific Islands are studied. Cultural patterns in relation to natural environments are considered to discover interrelationships. Geographic aspects of land tenure, race, population, location, geopolitics and the strategic importance of the various areas are considered.

Geog 292 Geography of Polar Regions **2 cr.**
Both Antarctica and the North Polar area are studied setting forth (1) the history of their exploration, (2) the physical environment, (3) the importance of the regions and of knowledge concerning the areas, and (4) future use and control of the areas.

SYSTEMATIC HUMAN GEOGRAPHY COURSES

Geog 253 Geography and Society **3 cr.**
A course especially designed for elementary and secondary social science teachers. Concepts of special importance will be emphasized, such as: spatial arrangement, areal change, earth for support of man, urbanization, significance of scale, biophysical relationships with society, interdependency, value of location, the chronological organization of knowledge, among others.

Geog 353 Geographic Influences in History **3 cr.**
Prerequisite: Geog 101, 151, or 153 and Geog 251, or 112.

A study is made of the relationship of the natural environmental factors to the settlement, development, and progress of selected countries—with major emphasis on the United States.

Geog 354 Trade and Transportation **3 cr.**

Prerequisite: Geog 101, 151, 153 and Econ 121.

An introduction to trade and transportation, it embraces analysis, theory and application techniques. Treatment includes trade patterns, place theory, statistics and models. Circulation, accessibility, time and distance concepts are considered. Routes, terminals, vehicles, commodities, and passengers are defined.

Geog 453 Political Geography **3 cr.**

Prerequisite: Six credits in Geography and six credits in other Social Sciences.

Consideration is given to the geographic elements as related to geopolitical concepts, types and distribution of political systems, major political units and association, factors which influence political power, areas of friction, conflict, and arbitration.

Geog 454 World Problems in Geography **3 cr.**

Prerequisite: Six Geography credits and six credits in other Social Sciences.

A study is made of world problems and the geographic backgrounds necessary to understanding them. Attention is given to boundary questions, world trade, world food resources, control and development of natural resources, settlement population problems.

Geog 455 Introduction to Urban/Regional Planning I **3 cr.**

Prerequisite: 9 Geography credits.

Students are introduced to the field of urban and regional planning, its background, its purposes and methods, and its implementation and ramifications. Work in the local office of planning familiarizes the student with practical planning.

Geog 456 Introduction to Urban/Regional Planning II **3 cr.**

Prerequisite: Geog 455. This is an extension of Geog 455 and considers the development of Urban and/or Regional Plans.

Geog 461 Regional Field Studies **1-3 cr.**

Prerequisite: 12 hours in Geography.

These trips, which involve the study of a selected area through the agencies of travel and actual investigation, are arranged from time to time to suit the needs of the student group.

Geog 462 Field Techniques in Geography **1-3 cr.**

Prerequisite: 12 hours in Geography or consent of instructor.

This course proposes to give experience in the study of land utilization and use of geographic tools and techniques of the field.

Geog 491 Geographic Thought and Philosophy **3 cr.**

Prerequisite: 18 semester hours in Geography.

The seminar is limited to senior and graduate geography majors or minors. The emphasis will be upon individual study, research, and presentation of geographic data—both written and oral. This course will be offered every semester and all geography majors (graduate and undergraduate) are required to complete this for major in education or in an area of concentration within the Liberal Arts.

Geog 492 Geography Honors **3 cr.**

Prerequisite: 18 semester hours in Geography.

Admission to the Geography Honors course is by invitation only to students who have attained junior standing. Students will do independent research over two semesters under the direction of a department member. Prerequisite is a B average in Geography courses, and a B average in Geography must be maintained during the honors program.

Geog 493 Geography High Honors **3 cr.**

Prerequisite: Geog 492.

This course is a third semester extension of Geog 492. Admission is by invitation only to those who have completed Geog 495.

PROFESSIONAL EDUCATION COURSES

Ed 421 Teaching of Geography in Secondary Schools **3 cr.**

Prerequisite: 18 semester hours of Geography including two regionals.

The major objectives of this course is the study of modern methods and techniques for teaching geography or geographic materials, and of current curricula in geography. Emphasis is placed on the contribution of the discipline to the understanding of national and world problems.

Ed 422 Teaching of World Cultures **3 cr.**

Prerequisite: 18 semester hours of Geography and/or Social Studies.

The course will emphasize modern techniques of teaching "World Cultures." Major study will be directed to the place of "World Cultures" in the curriculum, selection of texts, source materials for classroom use, and the preparation of resource and teaching units. Additional study will better enable the classroom teacher to maintain the proper balance between Geography and Social Studies in the preparation of the "World Cultures" course.

EARTH SCIENCE

Coordinated by: FREDERICK R. PARK, Chemistry Department
PAUL A. PRINCE, Geography Department
ROBERT L. WOODARD, Physics Department

Earth Science

ESci 211 Solar System **3 cr.**

Fundamentals of astronomy with emphasis on the telescope, observational methods, an examination of the sun, moon, planets, asteroids, comets, and meteors, the mechanics and origin of the solar system, and the spatial relationship of the solar system to the other members of the universe. Scheduled laboratory periods and night observations are part of the course. Two hours lecture and one laboratory period or night observation per week.

ESci 212 Stellar Astronomy **3 cr.**

Fundamentals of astronomy with emphasis on the sun, stars, galaxies, the sidereal universe, and the use of spectroscopy for gathering astronomical data. Scheduled laboratory periods and night observations are part of the course. Two hours lecture and one laboratory period or night observation per week.

ESci 221 Physical Geology **3 cr.**

A basic course, with no college prerequisites, designed to meet the need of science and non-science majors. It provides a survey of the physical forces molding, modifying and destroying earth structures. Laboratory work includes map study, the identification of rocks and minerals, and field trips. Two hours of lecture and one three hour laboratory per week.

ESci 222 Historical Geology **3 cr.**

Prerequisite: Physical Geology or permission of instructor.

A basic course providing a history of our planet from the fiery beginnings to the present. Special consideration is given to rock stratigraphic sequences, invertebrate fossil distribution and geologic map interpretation. Laboratory work includes field studies. Two hours of lecture and one three hour laboratory per week.

ESci 321 Paleontology **3 cr.**

This course covers the morphology, classification and evolution of the common fossils. Indiana University is fortunate in being located in an area in which a wide spectrum of representative fossils ranging from Cabrian to Permian time may be found within easy-driving distance of the campus. Major emphasis is placed on the invertebrate fossils. Field work is an essential part of the course. Two hours lecture and three hours laboratory per week.

ESci 331 Navigation **3 cr.**

A thorough grounding in the meanings of terms used in navigation, in the purposes and use of navigational instruments and publications and in the theory and general methods of piloting, dead reckoning and electronic and celestial navigation. Emphasis is placed upon chart work and the solution of practical navigational problems. Two hours lecture and two hours laboratory.

ESci 360 Structural Geology **2 cr.**

Prerequisites: Physical and Historical Geology or permission of instructor.

The course will provide an analysis of deformation and deformational processes as they apply to rock units. Specific structures will be related to the geomorphology and economics of the region. One hour lecture and four hours laboratory.

ESci 491 Earth Science Seminar **1-2 cr.**

A seminar scheduled by earth science majors with the earth science staff. Special problems and current developments in astronomy, geology, meteorology, oceanography, and other related areas of earth and space science will be investigated. Attention will be given to the operation of the planetarium and other special equipment available. Semesters when scheduled to meet once a week, the course will carry one credit and when scheduled to meet twice a week, it will receive two credits.

Geography Courses

Geo 346 Meteorology I **4 cr.**

Prerequisites: Geo 101, 151 or 153.

Introduction to meteorological sciences. Composition and structure of the atmosphere. Radiation principles. Elementary thermodynamics and heat balance. Cloud physics. The meridional, zonal, and teritary circulations. Air masses, fronts and strom structure. Common instruments in use. Elementary weather map reading and forecasting techniques. Lectures, readings, and laboratory.

Geo 347 Meteorology II **4 cr.**

Prerequisite: Meteorology I.

An introduction to physical, dynamical and theoretical meteorology. Hydrodynamic equations of motion. Circulation and vorticity. Atmospheric turbulence. Energy transformations in the atmosphere. Examination of circulation theories. Fluid dynamics. Lectures, readings and a term paper.

Geo 351 Introduction to Oceanography **4 cr.**

Prerequisites: Geo 101, 151, or 153.

A comprehensive survey of conservation in natural and human resources. It stresses regional understanding; accom-

plished through inventory, planning and utilization evaluation. Field work, workshop activities, projects, and use of resource specialists are an integral part of the course.

Geo 422 Aerospace Science **3 cr.**

Prerequisites: Geo 101, 151, or 153.

A seminar conducted by a number of visiting aerospace authorities. It treats of the atmosphere and space environment; history of flight and flight problems; satellites and space probes; manned orbital and space exploration projects; propulsion, communication, and other systems. Problems of teaching and bibliography at the various elementary and secondary levels will be considered. An indoctrination flight in a small craft and field trips to air age installations and projects fortify learning.

Geo 464 Field Techniques in Earth and Space Science **3 cr.**

Prerequisite: 12 s.h. in Earth Science/Geography.

Field techniques will acquaint the student with the tools of Earth and Space Science. It will provide first-hand experiences in the field with geology, meteorology, hydrology, soil, conservation, and astronomy.

HEALTH AND PHYSICAL EDUCATION DEPARTMENT FOR WOMEN

C. ELIZABETH McCAULIFF, Chairman

ALICE D. DICKIE
ANN T. ELLIOTT
BEVERLY J. LUCAS
RUTH PODBIELSKI

HEALTH AND PHYSICAL EDUCATION DEPARTMENT FOR MEN

JOHNNY J. MILLER, Chairman

OWEN J. DOUGHERTY
CHARLES L. KLAUSING
EUGENE E. LEPLEY
WILLIAM C. McDONALD
REGIS A. McKNIGHT
LEWIS H. SHAFFER
HERMAN L. SLEDZIK
SAMUEL G. SMITH

The objectives of the Physical Education Departments for Women and Men are to develop and conduct required programs of physical education for all University students; to provide intramural programs for interested students; to provide informal play opportunities, clinics, and sports clubs for students, faculty, staff, and other University personnel; and to provide professional programs of physical education for women and men who plan careers in this specialized area or in the related health professions.

The University offers required programs of health and physical education for the following reasons:

1. To provide opportunities for participation in those physical activities which satisfy individual interests, and then to develop a degree of skill sufficient for enjoyment of such activities throughout life.
2. To encourage sound health practices through an understanding of the body processes, exercise, skill development, rest, nutrition, and a personal physical fitness that will provide a fruitful life.
3. To develop cultural appreciation of sports, dance, and athletics which are so much a part of the American heritage.

Required Program for Women

Four semester hours of health and physical education are required of all University women except those majoring in physical education. This requirement may be waived in whole or in part upon the recommendation of the University physician, the Dean, School of Health Services, and with the approval of the Dean of the School in which the student is enrolled.

Regulation uniforms are available in the Book Store at a cost of $7.00.

HPe 101 Health **2 cr.**

This course includes the study of individual and community health problems with the primary emphasis placed on the improvement of the student's own health.

HPe 102 Physical Education I **1 cr.**

This course provides a program of carry-over sports and activities which improve general physical fitness and develop usable physical skills. Students in this course will be required to pass a proficiency examination in swimming. Any student who does not pass this examination will be required to take additional swimming instruction during the semester.

HPe 203 Physical Education II **1 cr.**

This course provides an opportunity to develop additional sport skills not covered in P. E. I. The student is also taught game strategy, advanced skills, and new techniques used in various activities.

Required Program for Men

Effective September of 1968 all men except those majoring in physical education are required to schedule two semesters of physical education for a total credit of one semester hour or one-half (½) credit per semester. This requirement may be waived in whole or in part upon the recommendation of the University physician, the Dean, School of Health Services, and with the approval of the Dean of the School in which the student is enrolled.

Regulation uniforms are available in the Book Store at a cost of $3.00.

Men will select two of the following activities each semester but will not be allowed to repeat an activity.

Archery
Badminton
Conditioning
Golf
Gymnastics
Handball
Soccer
Swimming and Diving (Required for non-swimmers)
Tennis
Volleyball
Adapted Activities

Course designations are as follows:

HPe 110	Physical Education I (Men)	½ cr.
HPe 111	Physical Education II (Men)	½ cr.

REQUIRED IN ELEMENTARY EDUCATION

El 314 Teaching of Health and Physical Education **2 cr.**
This course includes games, stunts, rhythms, relays, tumbling, dancing and skills suitable for the elementary school child. The teaching of health in the elementary school is emphasized. Methods, materials and lesson planning are a part of the course.

ELECTIVE COURSES

HPe 204 First Aid **1 cr.**
This course provides the student with an understanding of the practices and skills used for the proper care of all types of injuries.

The American Red Cross Standard and Advanced Certification cards are issued upon successful completion of the course.

HPe 205 First Aid Instructor **1 cr.**
Prerequisite: American Red Cross Standard and Advanced Certificates.

The course emphasizes the teaching phase of first aid. Qualified students may receive the American Red Cross First Aid Instructor's Certificate.

HPe 261 Senior Life Saving
The course emphasizes the swimming and rescue skills necessary to complete the American Red Cross Senior Life Saving Course. Certificates are awarded.

HPe 262 Water Safety Instructor **1 cr.**
The Water Safety Instructor's Course is offered to those students who have successfully completed the Senior Lifesaving Course. It emphasizes the teaching aspect of the skills, techniques and attitudes that are necessary in all areas of swimming.

Those students who successfully complete the course are qualified for such positions as waterfront directors, aquatic director and other similar positions.

HPe 263 Advanced Swimming **1 cr.**
This course emphasizes skill development in the nine basic swimming strokes. Diving, underwater swimming, endurance swimming and the elementary fundamentals of synchronized swimming are also included.

The course is designed for those persons who want to become more proficient in the various swimming skills. It also prepares students for the Senior Lifesaving and Instructor's Certificate.

HPe 264 Skin and Scuba Diving **1 cr.**
Prerequisite: American Red Cross Senior Life Saving Certificate.

This course is designed to teach the necessary skills and the proper use of equipment for underwater swimming, exploring, and hunting. Tanks, regulators, weights, and special equipment will be furnished. The student must purchase the mask, fins, and snorkel ($15.00). The course will include both theory and practical work.

HPe 265 Synchronized Swimming **1 cr.**
This course is a combination of swimming strokes, stunts, and controlled body movements done in a rhythmical pattern to the accompaniment of music.

CERTIFICATION IN THE FIELD OF EDUCATION FOR SAFE LIVING

HPe 251 Introduction to Safety Education **3 cr.**
This course is concerned with the recognition of unsafe conditions and practices and the methods by which they may be eliminated or curtailed. It gives an overall view of the safety problems in the home, school, highway, public places, and the work environment.

HPe 252 Driver Education **3 cr.**
Prerequisite: HPe 251. The student should have driving ability above the average and evidence of holding a driver's license, plus at least two years of driving experience without having a major accident for which the driver is responsible.
Driver Education is a combination of class instruction in traffic safety and driver training in actual behind-the-wheel practice in a dual control car. It prepares the student to teach driver education in a high school.

HPe 253 Methods and Materials in Safety Education in the Secondary Schools **3 cr.**
Methods and Materials in Safety Education in the Secondary Schools is a course that emphasizes the use of correlating and integrating safety with many different subjects and school activities, teaching as a separate subject and centering safety education around pupil organizations and special projects.

HPe 254 Organization and Administration of Safety Education **3 cr.**
The Organization and Administration of Safety Education deals with the basic principles of organizing, administering and supervising safety education procedures in schools. A large part of the course is devoted to methods of teaching pupil safety activities in school and community.

HPe 255 Psychology of Accident Prevention **3 cr.**
The application of the principles of psychology to the development of safe behavior in the school, home, community, highway, and industry. The cause of accidents in relation to attitudes, habits, and behavior.

REQUIRED COURSES FOR PHYSICAL EDUCATION MAJORS

HPe 111 Aquatics I **1 cr.**
Practice, study, and skill development in the basic swimming strokes and diving. Introduction to competitive swimming, racing starts, relays, endurance swimming and water games. Water safety and the care and maintenance of swimming pools. Purpose and organization of age group swimming programs.

HPe 112 Aquatics II **1 cr.**
Refinement of swimming and diving skills, organization of an instructional swimming program, stunts and games including water polo, and providing for the physically handicapped constitute the major part of the course. Life saving skills and techniques, directing a waterfront program, and an introduction to Scuba will conclude the course. The American Red Cross senior life saving and instructor's certificates may be earned if additional hours are devoted to the skills.

HPe 121 Racquet Sports (Tennis - Badminton - Squash) **1 cr.**
Practice in the fundamentals of the serve, various types of returns, position play, rules, and match play in singles and doubles.

HPe 131 Basketball - Soccer (Women) **1 cr.**
Practice in the fundamental skills of each sport; team play, rule interpretations, and patterns of offense and defense. Conditioning, team strategy, and officiating are also part of the course.

HPe 132 Field Hockey - Volleyball (Women) **1 cr.**
Basic skill development, team play, rules interpretations, and officiating techniques are considered. Play patterns, game strategy and conditioning are also a part of the course.

HPe 152 Introduction to Physical Education **2 cr.**
The significant historical events in health and physical education are considered. Scientific principles which form the bases for the profession, and the present day influences effecting physical education and all mankind are studied. The basic concepts in teaching these areas are presented so the student will grasp the true meaning of the profession he has selected. The opportunity to develop a philosophy of physical education and to define its relationship to educational goals and modern society are afforded.

HPe 221 Human Anatomy **3 cr.**

A systematic study of the skeletal, muscular, and nervous systems of the body. The structure and function of the various tissues and body organs are also considered.

Prerequisites: Biology 103 or 104. Two hours lecture and three hour laboratory work.

HPe 222 Human Physiology **3 cr.**

A study of human physiology with special emphasis on the muscular, circulatory, respiratory, digestive, endocrine, and nervous systems.

Prerequisite: Biology 103 or 104 and HPe 221 Human Anatomy. Two hours lecture and three hours laboratory per week.

HPe 202 Personal Health **3 cr.**

The understanding of the scientific approach to personal health problems and the development of desirable attitudes and practices in all areas of personal health constitute the major part of the course. The cause, prevention, and control of various diseases are also considered.

HPe 211 Gymnastics - Tumbling (Women) **1 cr.**

Instruction and skill development in elementary gymnastics, apparatus, tumbling, and stunts. Conditioning and the theory of gymnastics are also taught.

HPe 212 Gymnastics - Tumbling (Men) **1 cr.**

Instruction and skill development in elementary gymnastics, apparatus, tumbling, and stunts. Conditioning and the theory of gymnastics are also taught.

HPe 231 Football - Volleyball (Men) **1 cr.**

Fundamentals of position play, patterns of offense and defense, individual skills, and team organization in football are studied. In volleyball individual skills, position play, and team patterns are considered. Conditioning and rules interpretations are covered for both sports.

HPe 232 Advanced Field Hockey - Volleyball (Women) **1 cr.**

The refinement of basic skills and advanced techniques in stick work for hockey, are taught. The study of team play and the organization of tournament play for both sports are considered. Officiating techniques are also included in the course.

HPe 233 Basketball — Soccer (Men) **1 cr.**

Development in the basic skills of each sport are taught. Team tactics, drill patterns, conditioning, rules interpretations, and teaching methods are a part of the course.

HPe 241 Basic Rhythms and Folk Dancing **1 cr.**

Rhythmical activities for the elementary school child,

singing games, simple dances, fundamental movements to music, creative activities, and suitable folk dances are included in the course. Systematic observation of elementary classes are also provided.

HPe 242 Social and Square Dance **1 cr.**
Practice and instruction in the basic skills of the dance are stressed. Methods and materials for teaching dancing, the place of the dance in the school physical education program and advanced dance routines are a part of the course.

HPe 303 Community Health **2 cr.**
A historical glimpse of the public health movement and its effect on modern health practices is given. Community health problems in disease, sanitation, pollutants, housing and health education are studied. The inter-relationship of the school health program and public health agencies are analyzed.

HPe 312 Synchronized Swimming — Water Ballet (Women) **1 cr.**
The practice of individual, dual, and group routines to the accompaniment of music. Introduction to composition, production, and water ballet.

HPe 313 The Elementary Physical Education Program **1 cr.**
A thorough study and application of singing games, self testing activities story plays, rhythms, relays, games, stunts, and tumbling suitable for the elementary school child are a major portion of the course. Observation, methods of teaching, and opportunities for student teaching within the class are provided.

HPe 314 Teaching Secondary Physical Education **1 cr.**
Teaching techniques, lesson planning, basis for grade placement of activities, and time allotment are covered. Opportunities are provided for observation, and class teaching in games, sports, gymnastic type activities, and others.

HPe 321 Individual and Dual Sports (Golf — Archery — Bowling — Fencing) **1 cr.**
Practice in the fundamentals of each sport and the development of competent skill levels are required for the course. Methods of teaching, practice, and play on a regular facility are provided in golf and bowling.

HPe 331 Track and Field — Softball (Women) **1 cr.**
Individual skills and team tactics in softball are taught. The basic fundamentals in running and field events and the place of track in the physical education program are considered. Conditioning and rules interpretations in both sports are studied.

HPe 332 Baseball — Resistance Exercises (Men) **1 cr.**
Individual skills in fielding and batting, team strategy,

position play, and rules interpretation are a part of the course. Progressive resistance exercises through weight training are offered. Circuit course routines, the use of mechanical exercisers, and interval running are taught. The methods of teaching, the physiological basis and principles of exercising are stressed.

HPe 333 Coaching: Football — Basketball — Swimming — Advanced Gymnastics (Men) **1 cr.**

Students will select two sports for a nine week concentration in each. The course will include advanced skills, drills and practice routines, theory of play, and detailed analysis of team development from the physiological and psychological point of view. The study of rules, officiating, conditioning, diet, and scouting will also be included. Extensive laboratory experiences with the respective intercollegiate teams will be required.

HPe 334 Advanced Basketball — Tennis — Advanced Gymnastics (Women) **1 cr.**

A refinement of basic skills, singles, doubles, and team strategy, the organization of tournaments, meets, and methods of teaching are stressed.

HPe 335 Wrestling — Track and Field (Men) **1 cr.**

The basic skills of takedowns, escapes, reversals, pinning combinations, and counter maneuvers are taught in addition to a number of other wrestling techniques. The conduct of the match, tournaments, scoring, conditioning, and strategy are also emphasized. Each student participates in a number of matches. In track and field the conditioning, training, and techniques for each event are thoroughly covered in addition to coaching strategy, home meet organization and management.

HPe 341 Fundamentals of Movement — Modern Dance (Women) **1 cr.**

The principles and practices of body movement and creating a physical image through graceful movements are taught. Basic modern dance skills, methods of teaching, and creative experiences are also provided.

HPe 351 Tests and Measurements in Health and Physical Education **3 cr.**

The study and application of tests in physical fitness, motor ability, motor educability, sports skills, and health education, are taught. The evaluation of test results and the application of elementary statistical methods to the health and physical program are also considered.

HPe 352 Analysis of Motion **2 cr.**

Prerequisites: Anatomy and Physiology.

A basic course in the study of muscular movement in

physical activity; the application of the principles of kinesiology to body movement.

HPe 353 Physiological Basis for Physical Education 2 cr.
Prerequisites: Anatomy and Physiology.
The physiological aspects of exercise on the human body are studied. The major factors of diet, conditioning, physical fitness, maximum performance level, and fatigue are considered. The latest research in sports physiology are also a part of the course.

HPe 362 The Adapted Physical Education Program 2 cr.
Prerequisite: HPe 352 Analysis of Motion.
The physiological principles of exercise and movement as they relate to the student with limited physical capacities are stressed. Modified and remedial activities for the disabled or handicapped student are taught. Administrative considerations for the adapted program are discussed. Screening tests and the appraisal of postural deviations are considered.

HPe 372 Analysis and Care of Sports Injuries — First Aid 2 cr.
The prevention and care of accidents in sports activities are studied. The significance of the medical examination, conditioning exercises, and sound health practices are discussed. Laboratory work includes taping, bandaging, use of physiotherapy equipment, massage, and supervised training room experience. The American Red Cross Instructors Rating may also be an outcome of this course.

HPe 404 The School Health Program 2 cr.
Prerequisites: HPe 202 Personal Health.
A comprehensive study of the principles, methods, course content, and role of a complete school health program are considered. Primary emphasis is given to curriculum planning at all school levels, pupil needs, community resources, the school environment, and the school health services. Administrative relationships and procedures conclude the course.

HPe 431 Intramurals — Special Events in Physical Education (Women) 1 cr.
Organization and justification of intramurals in the public school program. Planning and executing Sports Days, May Days, Field Days, and other informal activity programs.

HPe 432 Conducting Intramural and Interscholastic Program (Men) 1 cr.
Selection of intramural activities, units of competition, program organization and justification, schedule making, rules and regulations, scoring, and awards are covered. The place of interscholastic athletics in the school program, use of indoor and outdoor facilities, scheduling, and budget are considered. Policies of participation, medical examinations, and safety procedures are included in the course.

HPe 433 Coaching: Wrestling — Baseball — Soccer — Track & Field (Men) **1 cr.**

Students select two sports for a nine week concentration in each sport. The course includes the improvement of skills, drills, practice routines, analysis of the physiological and psychological development of the teams, and the place of each activity in the school program. Rules study, conditioning, diet, and pre-game procedures are a part of the course. Extensive laboratory experiences with the respective intercollegiate teams are required.

HPe 434 Sports Officiating (Women) **1 cr.**

Techniques of officiating basketball, volleyball, hockey, softball, and swimming are included in the course. Actual officiating experience in campus games is required. Rule interpretations in all sports. The American Red Cross Water Safety Instructor's Rating may also be an outcome of this course.

HPe 451 Organization and Administration of Physical Education **3 cr.**

The course includes the organization of the program in the elementary, junior and senior high grades. It includes the instructional program, intramurals, and interscholastic sports. The relationship of the physical education curriculum to the overall school program is studied. Scheduling, medical excuses, sound health practices, equipment, and various administrative problems are discussed.

Elective Courses for Physical Education Majors

HPe 161 Introduction to Recreation **2 cr.**

The history, theory, and philosophy of recreation are discussed. The importance of play in the modern world, future trends in recreation, problems encountered in organizing community-school programs, and the principles of leadership are studied.

HPe 251 Introduction to Safety Education **3 cr.**

This course is concerned with the recognition of unsafe conditions and practices and the methods by which they may be eliminated or curtailed. It gives an overall view of the safety problems in the home, school, highway, public places, and the work environment.

HPe 264 Skin and Scuba Diving **1 cr.**

Prerequisite: American Red Cross Senior Life Saving Certificate.

This course is designed to teach the necessary skills and the proper use of equipment for underwater swimming, exploring, and hunting. Tanks, regulators, weights, and special equipment are furnished. The student must purchase the mask, fins, and snorkel ($15.00). The course includes both theory and practical work.

HPe 162 Camp Programs **2 cr.**

The growth and significance of the camp movement, understanding of camp techniques, and the various kinds of camp programs are considered. Attention is given to camp craft, nature study, woods lore, and special occasion activities. School outdoor education programs are also studied.

HPe 133 Lacrosse — Calisthenics **1 cr.**

Individual skills and team tactics in lacrosse are taught. The movement of large groups, marching tactics, and various exercises for women are practiced. Opportunities for teaching within the class are provided.

ATHLETIC DEPARTMENT

CHARLES L. KLAUSING, Director

ANTHONY S. BERNARDI,
assistant basketball coach
OWEN J. DOUGHERTY,
head baseball coach, assistant football coach
BERNARD J. GANLEY, golf coach
HARRY W. HALDEMAN, tennis coach
CHARLES L. KLAUSING, head football coach
EUGENE E. LEPLEY,
head swimming coach, freshman football coach
WILLIAM C. McDONALD,
assistant football coach
JOHN PRATER, athletic trainer
CHARLES E. RECESKI, assistant football coach
LEWIS H. SHAFFER, head wrestling coach
HERMAN L. SLEDZIK, head basketball coach
WALTER J. STAPLETON,
assistant basketball coach
HAROLD E. THEAKSTON, rifle coach
FRANCIS A. VOYTEN,
cross country and track coach
ROBERT M. WATSON, assistant football coach

Indiana University of Pennsylvania presently offers ten sports at the intercollegiate level for the student body. Varsity, junior varsity, and freshman teams include:

Fall	Winter	Spring
Cross Country	Basketball	Baseball
Football	Swimming	Golf
Rifle	Wrestling	Tennis
		Track and Field

HISTORY DEPARTMENT

CLYDE C. GELBACH, Department Chairman

STEVEN CORD
ERNEST FRICKE
THOMAS GOODRICH
JOHN KADLUBOWSKI
DALE E. LANDON
KATHLEEN E. McCOY
IRWIN MARCUS
JANE S. MERVINE
EDGAR MOORE
ROBERT L. MORRIS
JAMES M. OLIVER
JOHN MERLE RIFE
JOHN R. SAHLI
ALICE K. SCHUSTER
RALPH SMILEY
ALBERT J. WAHL
GEORGE T. WILEY
JOHN YACKUBOSKEY

HISTORY ELECTIVES

Hist 101 History of Civilization I **3 cr.**

A survey course presenting in integrated form the origin and development of man's major political, social, economic, religious, and intellectual institutions from historical times to 1600 A.D. Although part of the course is devoted to Oriental and Near Eastern civilizations, the major emphasis remains on Greek, Roman, Medieval, and early Modern European civilizations. Through comparison an effort is made to point up both the similarity and the uniqueness of these civilizations. Through the presentation of detail and conflicting historical interpretations an effort is made to create an appreciation of the depth and complexity of man's past.

Hist 102 History of Civilization II **3 cr.**

This course deals with man's development from 1600 to the present. Among the topics discussed are: The Commercial Revolution; the Age of Reason; the Age of Revolution—political, economic, and social; the rise of constitutional governments; nationalism and the clash of cultures incident to the growth of empire. Considerable attention is given to democracy, capitalism, communism, fascism, and socialism as the major ideologies of the nineteenth and twentieth centuries. The course concludes with an examination of the various formulas for world order proposed or attempted since 1900.

Hist 103 History of the United States and Pennsylvania I **3 cr.**

A course covering the period in American history from the discovery of America to 1865 with emphasis on the history of Pennsylvania. Special attention is given to the colonial foundations of our nation, the emergence of our Federal Union, the rise of an American culture, territorial and economic growth of the United States, the rise of political democracy, social reform, and the controversy over sectionalism and slavery.

Hist 104 History of the United States and Pennsylvania II **3 cr.**

A course in the history of the United States and Pennsylvania from 1865 to the present in which the industrialization

of America, urbanization, the rise of organized labor, and the development of a distinctly American culture are stressed. Attention is also given to the political, economic, and social reform movements of this period in our history as well as to the increasing role of the United States in world affairs.

Hist 345 Colonial America **3 cr.**
A survey of United States' history to 1783 with special attention to economic, political, and social trends.

Hist 350 History of Latin America: Colonial Period, 1450-1820 **3 cr.**
A study of the life of the people, the Indian cultures, the conquest by the Spaniards and Portuguese, the government during the Colonial Period, and the Wars of Independence.

Hist 351 History of Latin America: National Period, 1820 to Present **3 cr.**
A study of the history of the nations which have emerged since independence. Emphasis will be placed on the economic, political, cultural, and social developments of these nations as well as the relationships of these nations to others in the Hemisphere.

Hist 352 History of England to 1688 **3 cr.**
A survey of the growth of the English nation with emphasis on the political, social, and economic developments leading to the 17th century conflict between Crown and Parliament.

Hist 353 History of England, 1688 to Present **3 cr.**
A survey of the growth of England as a democratic constitutional monarchy. Attention is directed to the industrial revolution, and to imperial expansion and England's role in the 20th century world.

Hist 354 History of Russia **3 cr.**
A general survey of Russian history, culture, and institutions. Special consideration is given to the study of those historical forces which were formative of the Revolution of 1917.

Hist 355 History of Soviet Russia **3 cr.**
A general survey of contemporary Soviet history, culture, and institutions. Special consideration is given to the study of communist theory and its place in current Russian historiography.

Hist 356 The Old Regime through the Empire: France 1589-1815 **3 cr.**
Brief sketch of medieval France and the development of the monarchy. Concentration on the Old Regime, Revolution, and Empire with emphasis on politics, diplomacy, and economics. Readings and brief papers.

Hist 357 Modern France **3 cr.**
An investigation of the political, cultural, economic, and social developments since 1815. Lectures, discussions, and papers.

Hist 358 History of Germany to 1848 **3 cr.**
A study of the evolution of the German nation from its prehistoric origins, through its ancient, medieval and early modern phases, to 1848. Topics treated will be: the **Volkerwanderung,** Holy Roman Empire (First Reich), **Drang nach Osten,** Reformation, rise of Austria and Prussia, **Aufklarung** and classical Weimar, German idealism and romanticism, the impact of the French Revolution, Metternichian system, **Zollverein,** and the Revolution of 1848.

Hist 359 History of Germany: 1849-1949 **3 cr.**
A study of modern Germany from the Revolution of 1848, in its imperial, republican and totalitarian manifestations, to the postwar formation of the partitioned Germany of the present day. Topics treated will be: creation of the Second Reich by "Blood and Iron," Bismarckian Germany and **Realpolitik,** Wilhelmian Germany and **Weltpolitik,** multi-national Austria, First World War, Weimar Republic, rise of National Socialism and the Third Reich, Second World War, Nurnberg Trails, the Allied occupation, and the beginnings of East and West Germany.

Hist 360 Special Studies in History **3 cr.**
Selected periods or problems for intensive study.

Hist 361 Contemporary United States History **3 cr.**
A course devoted to the analysis of the fundamental changes in American culture since 1900. In evaluating social, intellectual, economic, and political developments since the era of the "Full Dinner Pail," the United States is studied as a product and as a part of the world community of nations. Foreign policy is interpreted as the pursuit of American interests under the conditions imposed by contemporary international politics.

Hist 363 Diplomatic History of the United States **3 cr.**
This course traces the history of our foreign relations from the American Revolution to the present. Emphasis is placed on those principles and major policies upon which our foreign policies are based.

Hist 364 Great Personalities in History **3 cr.**
This course deals with how the personality and ideas of important historical figures have influenced the shape of history.

Hist 365 History of Pennsylvania **3 cr.**
A study of the foundings and development of Pennsyl-

vania from its colonial beginnings to the present time. Emphasis is placed on the social, economic, and political developments in the different periods of its history. Special attention is given to the diversity of the people, their institutions and problems, and the growth of Pennsylvania to a leading position in our modern industrial world.

Hist 371 Renaissance and Reformation **3 cr.**

This is a course dealing with the study of the Renaissance, with reference to the artistic, literary, scientific and political aspects, and the vital personalities motivating them; the Reformation as it affected the religious, economic, and political development in Europe. Particular attention will be given to the educational ideas of Erasmus and other reformers in this period.

Hist 372 History of Europe: 1600-1815 **3 cr.**

This course puts emphasis upon political, diplomatic, economic, and intellectual developments from 1600 to 1815. Coming in for special consideration are the development and operation of the European state system, the Enlightenment, the extension of the parliamentary institutions in England, and the French Revolution and Napoleon.

Hist 373 History of Europe: 1815-1914 **3 cr.**

A study of Europe in the nineteenth century with emphasis on political, diplomatic, military, and economic affairs. Approximately two-thirds of the course is devoted to a description of the major European states in this century. An effort is made to integrate this account through diplomatic history and by devoting approximately one-third of the course to topical consideration of such items as Imperialism, Nationalism, Socialism, and the Industrial Revolution.

Hist 374 History of the Twentieth Century World **3 cr.**

This course examines political, economic, social and intellectual trends in the world since 1900, with a major emphasis on European contributions. Consideration is given to the causes and results of twentieth century warfare and the search for international order and stability.

Hist 375 History of the Far East **3 cr.**

A survey of the development of the peoples of China, Japan, India, and adjacent territories for the purpose of gaining an understanding of their contemporary problems and ways of thinking as they relate to current world affairs. Special emphasis is placed on the impact of the West as a conditioning factor in the development of the Far East in Modern times.

Hist 376 History of the Middle East **3 cr.**

This course is a study of the Ottoman Middle East and its lack of political unity resulting from the rise and development

of Arab, Turkish, Zionist, and other nationalist movements. Special attention is given to the effect of these movements upon the contemporary history of the Middle East and to the significance of that area in current world affairs.

Hist 380 Medieval Europe I, 400-900 **3 cr.**

A history of early Medieval Europe from the decline of the Roman Empire to the beginning of the growth of the feudal monarchies. Emphasis placed on political, constitutional, economical, and social developments in Medieval Europe from 400 A.D. to 900 A.D.

Hist 381 Medieval Europe II, 900-1350 **3 cr.**

A history of late Medieval Europe from the rise of the feudal monarchies to the beginnings of the Renaissance period. Emphasis placed on political, constitutional, economical, and social developments in Medieval Europe from 900 A.D. to 1350 A.D.

Hist 390 Social and Intellectual History of the United States to 1875 **3 cr.**

A study of the social and intellectual factors which helped to shape the nation up to the time of Henry George.

Hist 391 Social and Intellectual History of the United States Since 1875 **3 cr.**

An analysis of the cultural forces which have helped to shape modern America. Ways of living characteristic of certain periods will be studied, together with the more significant social-reform movements and their attendant systems of thought.

SCHOOL OF HOME ECONOMICS

ELLA C. BENDIX, Dean

PATRICIA ANN BELL
WILLA RUTH CRAMER
HELEN B. HOVIS
M. KATHLEEN JONES
ALMA B. KAZMER
BERNICE W. KING
SUE KOON
ELIZABETH HEARN LaVELLE
YU-CHEN LIU
VANNIS A. LUCAS
DAWN McCLOWRY
A. CAROLYN NEWSOM
LEOLA H. NORBERG
MILDRED E. OMWAKE
C. ELDENA PURCELL
ELISABETH A. SCHMIDT
SHATYA SHARMA

REQUIRED COURSES FOR ALL STUDENTS ENROLLED IN THE SCHOOL OF HOME ECONOMICS

HE 111 Meal Management **3 cr.**

Basic principles of menu planning, marketing, food preparation and table service for family meals are investigated and studied. Demonstration and laboratory methods of teaching are used.

HE 113 Management and Equipment **3 cr.**

Management, decision making processes and organization relative to the administration of a home, is emphasized. Principles needed for the wise selection, efficient operation and care of kitchen, laundry and other household equipment are studied and applied. Comparative studies of operation and efficiency of various kinds of equipment, procedures and cleaning materials, and work processes are emphasized. Good management in arrangement, storage and working heights and procedures that will save time, energy, and money and secure good results in family living form the basis of the course.

HE 211 Advanced Foods **3 cr.**

Prerequisites: Chem 101 and 102.

A study is made of advanced and in-depth problems in food preparation and meal service. In such areas food preservation, protein, carbohydrate and fat cookery are emphasized.

HE 212 Nutrition **3 cr.**

Prerequisites: Chem 101 and 102; Biol 151 or concurrently.

Sources and functions of nutrients, inter-dependence of dietary essentials and nutritive value of an optimum diet are investigated and studied. Nutritional requirements of each stage of human growth and development of life, nutritional deficiencies and diseases are emphasized. Attention is given to the different economics levels, racial and ethnic backgrounds, food additives, food fads and fallacies.

HE 218 Child Development **3 cr.**

Prerequisite: Psy 201.

The physical, emotional, social and intellectual develop-

ment of the child from conception through the early adolescent period is studied and analyzed. Research from psychology, anthropology, sociology, and human development is analyzed in terms of contributing toward better understanding of normal development and behavior of the child.

HE 315 Family Finance and Consumer Education **3 cr.**

Economic, sociological and psychological principles are applied to family money management problems. Production, distribution, retailing, and consumer aid and protection are investigated. Income (real and psychic) budgeting, installment buying, savings and investment, banking and wise use of time, materials and human resources are related to consumer satisfactions. Ways of living better on a given income are emphasized.

HE 411 Family Relations **3 cr.**

Students have opportunity to gain knowledge and understanding of personality development and the importance of early family and community influence in well adjusted lives and family stability. Emphasis is on preparation for marriage and problems of human relations within homes. Reading, discussion, and conferences are used in facing and solving problems.

HOME ECONOMICS EDUCATION DEPARTMENT

A. CAROLYN NEWSOM, Chairman

PATRICIA ANN BELL
WILLA RUTH CRAMER
HELEN B. HOVIS
M. KATHLEEN JONES
ALMA B. KAZMER
BERNICE W. KING
SUE KOON
YU-CHEN LIU
VANNIS A. LUCAS
DAWN McCLOWRY
MILDRED E. OMWAKE
C. ELDENA PURCELL
SHATYA SHARMA

REQUIRED COURSES FOR STUDENTS IN HOME ECONOMICS EDUCATION

HE 111 Meal Management (see description on page 250) 3 cr.

HE 112 Clothing I — Clothing Construction and Fitting 3 cr.
Principles and techniques of fitting and construction of clothing are analyzed and studied. Directed laboratory experiences provide opportunity to solve individual clothing problems through the application of principles.

HE 113 Management and Equipment (see description on page 250) 3 cr.

HE 211 Advanced Foods (see description on page 250) 3 cr.

HE 212 Nutrition (see description on page 250) 3 cr.

HE 213 Principles of Design 2 cr.
Principles of art and design are studied and applied.

HE 214 Clothing II — Fitting and Pattern Study 3 cr.
Prerequisite: HE 112.
Principles and techniques of pattern design and alteration are analyzed and used in the creation of an original design from a basic pattern. A garment is made utilizing construction processes best adapted to the design, the fabric and to the individual.

HE 216 Clothing Selection 3 cr.
Prerequisites: HE 213, Psy 201.
Aesthetic, economic and social-psychological factors affecting the selection of clothing for the individual are studied.

HE 217 Home Planning and Furnishing 3 cr.
Prerequisite: HE 213.
Problems confronting families in finding and selecting suitable housing and in creating attractive homes are identified and studied. Community planning; the selection, planning and construction of homes, are problem areas investigated. Focus is placed upon factors affecting cost and quality; plans for convenience, comfort, aesthetic values, and various legal factors. Directed laboratory experiences are required.

HE 218 Child Development (see description on page 250) 3 cr.

HE 314 Textiles 3 cr.
Properties, identification, selection, use and care of textile

fibers and fabrics are studied and analyzed. Focus is placed upon laws governing labeling and other factors related to consumer aid, protection and satisfaction.

HE 315 Family Finance and Consumer Education **3 cr.**
(see description on page 251)

HE 411 Family Relations **(see description on page 251)** **3 cr.**

HE 412 Nursery School **3 cr.**

Prerequisites: Psy 201, 302 and HE 218.

Participation in the nursery school as a teacher assistant applying principles and concepts of child development is the major focus of this course. Techniques of planning for and managing a group of pre-school children are emphasized.

HE 414 Home Management (Residence House) **3 cr.**

Decision making in group living is emphasized. Satisfying human relations are developed as family members care for a baby; plan, prepare and serve nutritious meals; use and care for equipment and furnishings; and provide for individual and group needs in various other ways.

HE 415 Teaching Methods and Professional Practicum in Vocational Home Economics **4 cr.**

This course, taken the semester prior to the Student Teaching Experience, provides students with the opportunity to plan home economics curricula in relation to the needs and interests of pupils and their families within the school community. Students become orientated to classroom experiences, activities and responsibilities which they will encounter in teaching, through planned observations in Secondary Schools, Adult Classes and their assigned Student Teaching Centers.

Ed 421 Student Teaching **6 cr.**

Prerequisite: HE 415.

The student teacher participates in the experiences and responsibilities of the home economics teacher in the high school classroom as well as the community. The university supervisor guides and coordinates the kinds of learnings and aids the students in analysis and evaluation of personal and professional growth during visitations and Saturday Conferences.

HE 452 Vocational Home Economics — Curriculum Construction **2 cr.**

Prerequisite: HE 415.

Home Economics curriculum planning and construction are studied in relation to the changing home economics curriculum in terms of the Vocational Education Act of 1963-P.L. 88-210. An investigation and evaluation is made of current home economics related wage earning programs in secondary schools. Emphasis is placed on planning and evaluating home economics wage earning programs as an integral part of the home economics curriculum and the total educational program of the vocational and secondary schools. Field trips to schools, and to business and industrial establishments are required.

INSTITUTIONAL FOOD SERVICES DEPARTMENT

ELISABETH A. SCHMIDT, Chairman

HELEN B. HOVIS
BERNICE W. KING
ELIZABETH HEARN LaVELLE
VANNIS A. LUCAS
LEOLA H. NORBERG
C. ELDENA PURCELL

REQUIRED COURSES FOR STUDENTS IN INSTITUTIONAL FOOD SERVICES

HE 111 Meal Management **(see description on page 250)** **3 cr.**

HE 113 Management and Equipment **(see description on page 250)** **3 cr.**

HE 211 Advanced Foods **(see description on page 250)** **3 cr.**

HE 212 Nutrition **(see description on page 250)** **3 cr.**

HE 218 Child Development **(see description on page 250)** **3 cr.**

HE 313 Quantity Food Service Management **3 cr.**
Prerequisites: HE 111, HE 211, HE 212.
This course is designed to give instruction and fundamental experiences essential to quality food production on a quantity basis. Experiences include planning, purchasing, preparing and serving nutritionally adequate lunches to the campus elementary school children. The requirements of the National School Lunch Program are emphasized.

HE 315 Family Finance and Consumer Education **(see description on page 251)** **3 cr.**

HE 355 Diet Therapy **3 cr.**
Prerequisites: HE 111 and 212; Chem 101 and 102; Biol 151.
This course is required for students with a concentration in Institutional Food Services. It is an elective for other students. (See course description under Electives page 256.)

HE 356 Food Service Administration **3 cr.**
Prerequisites: Psy 201, HE 313.
This course studies the integration of the organization and administration of the food service functions correlating the management of personnel policies and training, work simplification, cost controls, supervision, and sanitation. Field trips to various types of food service institutions are included.

HE 358 Institution Food Service Equipment and Layout **3 cr.**
Prerequisite: HE 313.
The emphasis in this course is placed on the selection and layout of food service equipment in relation to production requirements, materials and utility. Field trips permit the investigating of a variety of layouts.

HE 359 Quantity Food Purchasing **3 cr.**

Prerequisite: HE 313.

This course discusses sources, standards of quality, grades, methods of purchase, care and storage of various classes of food. Emphasis is given to the development of purchasing policies and the organization of purchasing procedures. Trips to markets are included.

HE 360 Accounting for Food Service **3 cr.**

This course includes business procedures and practices; the use of accounting as a managerial tool; introduction of the basic theory of accounts; knowledge and skill adequate to keep books for a food service operation; journalizing, posting use of ledger accounts, closing of books of original entry and statement preparation aimed at the control of costs in food service operation.

HE 361 Institution Food Service Experience **6 cr.**

Prerequisites: HE 313, HE 356; HE 358; HE 359; HE 360, HE 364.

This is a guided experience under the supervision of a certified school food service director in schools enrolled in the National School Lunch Program. Students gain practical experience in management and other aspects of a school food service operation.

HE 362 Experimental Foods **3 cr.**

Prerequisites: HE 111, 211 and 212; Chem 101 and 102.

A study of food preparation based upon the scientific method is carried out wherein effects of chemical and physical principles are observed. This is accomplished by investigating group and individual problems.

HE 364 Methods in Teaching **3 cr.**

An intensive study is made of Home Economics as it is related to and interrelates with the entire school and educational program. Curriculum, teacher responsibilities, pupil-teacher planning, home-school relations, teaching techniques and aids, learning, evaluation and special school functions are studied. Reference is made to the application of training methods for food service employees. Observations are included.

HE 402 Nutrition and Community Health **2 cr.**

A study is made of nutritional problems of family members from infant to aged people of the community. Emphasis is placed on reorganizing good nutritional status and ways of guiding families toward better nutrition. School lunch is also emphasized. The course is also required of Public School Nursing majors as PSN 402.

HE 411 Family Relations **(see description on page 251)** **3 cr.**

ELECTIVE COURSES FOR STUDENTS IN THE SCHOOL OF HOME ECONOMICS

Students may choose home economics electives from either department.

HE 215 Home Furnishing **2 cr.**
Prerequisite: HE 213.
Problems of creating attractive homes are investigated and studied. Emphasis is given to the selection, purchasing, and arrangement of furniture and home furnishings; the selection and planning of floors, walls and windows; and the improvement of furniture. Directed laboratory experiences focus upon the application of principles and knowledge learned.

HE 312 Housing **2 cr.**
Prerequisite: HE 213.
Family and community housing problems are investigated. Convenience, cost, comfort, aesthetic values are emphasized in the study of such topics as: architectural designs, floor plans, processes in construction, ventilation, lighting, plumbing, heating, financing and legal factors. Individual projects and field trips are required.

HE 351 Nutrition Education (School Education) **2 cr.**
A study is made of functional knowledge of nutritional concepts as background for helping teachers guide students through varied experiences directed toward improved food habits and nutritional health. The contribution made by the school lunch program is emphasized. Majors and non-majors.

HE 352 Nutrition for the Pre-School Child **2 cr.**
Nutritional needs of pre-school children are studied from the biological and physiological standpoint. The influences of social, economic and ethnic background in establishing dietary habits are analyzed.

HE 353 Clothing IV — Millinery and Other Accessories **2 cr.**
Prerequisites: HE 213 and 216.
Selection, construction and remodeling of hats is included in this course. Appropriate costume accessories are created, analyzed and evaluated.

HE 354 Clothing V — Special Problems in Clothing **3 cr.**
Prerequisite: consent of the instructor.
Clothing problems met by individuals, families and teachers are solved. This course provides excellent opportunities for students who have had too little experience in construction and other clothing problems.

HE 355 Diet Therapy
(Required for Institutional Food Services) **3 cr.**
Prerequisites: HE 111 and 212; Chem 101 and 102; Biol 151.

A study is made of the modification of the normal adequate diet to meet the nutritional meals of the dietary problems of the infant, growing child, the aged, the pregnant and lactating woman, and pathological conditions requiring special dietary treatment. Special diets are planned and calculated. The course is planned for students desiring advanced study in nutrition.

HE 357 Special Problems in Foods **3 cr.**
Prerequisites: HE 111 and 211.
Emphasis is placed on demonstration of food preparation and problems of catering banquets, receptions and other social functions. Opportunity is provided for solving individual and/or group problems.

HE 363 The Family and the Community **3 cr.**
An intensive study is made of community contributions and problems that affect the family as well as the contributions of families to the community. Group dynamics, and media of communication and other experiences that aid understanding of human behaviors is investigated. Field work is an integral part of the course.

HE 403 Home and Family Living **3 cr.**
Housing, home furnishing, household equipment, clothing, operational and nutritional needs of families are investigated. Home management and money management operations are investigated. Emphasis is placed on ways to help families derive the greatest benefits and satisfactions within the family income. Non-majors.

HE 413 Consumer Economics **3 cr.**
Sociological and psychological reactions of persons are discussed in relation to customs, advertising and income. Knowledge of production, distribution and retail is used to analyze and interpret governmental and other aids to the consumers. Research studies are required of each student.

HE 416 Family Finance **2 cr.**
Economic principles underlying personal and family financial problems are studied. Sources of income, use of time, material and human resources, and planning for wise use of family income are investigated.

HE 417 Clothing III — Tailoring **3 cr.**
Prerequisites: HE 112, 214 or equivalent.
Various tailoring methods are studied and applied in the selection, fitting and construction of a tailored garment. Comparative study is made of commercial-tailored garments.

HE 421 Pre-School Education, Ages 2-5 Years **4 cr.**
Prerequisites: Psy. 201, 303; HE 218 and 412.
Directed experiences in assisting a master teacher in a

nursery school is required. Experiences include observation of work with children in a variety of situations. Selected children are studied intensively. Research is investigated as a basis for understanding child behavior, principles and procedures of guidance.

HE 422 Early Childhood Education — Equipment and Materials **2 cr.**

Prerequisites: Psy. 201, 302; HE 218 and 412.

Materials, equipment, activities and situations that will aid the physical, social, emotional and intellectual development of pre-school children are investigated. Children and the variations of behavior are observed and analyzed as the 2-, 3-, and 4-year old reacts and interacts to their environment.

HE 423 Marriage and Family Relations **3 cr.**

Prerequisites: HE 411.

Emphasis is placed on the development of an understanding of inter-personal relations within family living. Potential problems of marriage are identified and investigated in terms of the development of an understanding of what constitutes good adjustment. Interviews, projects, observations, and case-studies are planned and carried out by individuals and/or groups.

HE 424 The Family **3 cr.**

Prerequisite: HE 411.

A concentrated study is made of selected areas of family life with emphasis on the dynamics of family interaction and interpersonal relationships. Group projects and individual studies are required.

HE 451 Workshop in Home Economics **3 cr.**

This course is planned to meet the needs of experienced teachers and college graduates in home economics who are expecting to return to the teaching profession. Current educational trends, issues and problems in home economics education are identified and evaluated. This advanced course is required of those who are returning to the home economics teaching profession after an absence of five or more years. It may be elected by advanced undergraduate students who have completed HE 415 and Education 421.

HE 453 Materials and Methods of Teaching in Home Economics **2 cr.**

Current instructional and curriculum materials, learning resources, methods and techniques of teaching will be investigated and studied in relation to the philosophy of home economics education, learning processes and the conceptual framework of home economics. This course is for advanced undergraduate students and college graduates in home economics.

HE 454 Adult Home Economics Education **2 cr.**

Principles and theories of adult education are investigated and studied. Emphasis is placed on the needs and interests of adults and how home economics can meet these. Plans for implementing a vocational home economics program are formulated, analyzed and evaluated.

HE 455 Education and Vocational Guidance **3 cr.**

Implications of the Manpower Act of 1962 and the Perkins Bill for home related employment are studied. Needs in Pennsylvania communities are investigated. Possible programs are formulated and experiences needed for their implementation sought.

HE 456 Evaluation in Home Economics **2 cr.**

Principles, techniques and procedures of evaluation are investigated in terms of learning processes. Evaluative instruments are studied and evaluated. Instruments for appraising major types of objectives are planned and constructed. This course is for advanced undergraduate students and college graduates in home economics.

LAW ENFORCEMENT DEPARTMENT

HARRY W. MORE, Chairman

FERDINAND BIONAZ
STANLEY COHEN
WILLIAM HENRY
BLAIR L. McKILLIP, JR.
WILLIAM J. McKNIGHT
JOHN MELLEKY
GILFERT M. MIHALICH

COURSE DESCRIPTIONS

Law E 101 General Administration of Justice **3 cr.**
Administration of criminal justice in the United States. Deals with the role of the police, courts, and the correctional process.

Law E 102 Criminology **3 cr.**
General survey of the nature and causes of crime and its prevention and treatment.

Law E 201 Police Administration I **3 cr.**
An analysis of organizational structure, administrative practices and operating procedures of law enforcement agencies.

Law E 202 Police Administration II **3 cr.**
Continuation of Police Administration I with special emphasis on the staff functions such as records, communications, training, personnel administration, and finance.

Law E 301 Criminal Law I **3 cr.**
A formal study of specific crimes as found in common law and in state and local codes.

Law E 302 Criminal Law II **3 cr.**
A detailed study of the legal procedures through which the accused passes. Laws of arrest, search and seizure with a discussion of important case law. An analysis of the safeguards established for the protection of individual liberties, especially as found in the application of rules governing the introduction and use of information in formalized legal proceedings.

Law E 310 Criminal Investigation **3 cr.**
The theory and practice of investigation. A discussion of the various types of information obtainable from persons and things. The application of investigative theory to crime and accidents.

Law E 311 Criminalistics **3 cr.**
The application of scientific crime detection methods. Emphasis on the collection, preservation, and interpretation of physical evidence found in connection with a crime. Two hours lecture and three hours laboratory per week.

Law E 325 Instrumental Detection of Deception **3 cr.**
Device for measuring emotional responses to verbal stimuli; psychological and physiological aspects of deception; analysis of detection and deception techniques and their application to law enforcement. Two hours lecture and three hours laboratory per week. Prerequisite: Law E 350.

Law E 330 Planning and Research **3 cr.**
The role of planning and research in contemporary law enforcement establishment. Analysis of the planning process and the nature of planning with an emphasis on planning for special events and situations.

Law E 340 Crime Prevention **3 cr.**
Organization and function of crime prevention agencies; problems and techniques in the prevention of crime; community resources in preventing crime.

Law E 350 Techniques of Interviewing **3 cr.**
Consideration of the nature, methods, and principles of interviewing. Emphasis on role playing in interviewing situations.

Law E 360 Commercial and Industrial Security **3 cr.**
Plant protection and industrial security; merchandising safety and security; credit and insurance investigative procedures.

Law E 370 Community Relations **3 cr.**
The role of law enforcement agencies in modern day society. Police-community relations units; human relations resources; civil rights and professionalism in law enforcement.

Law E 411 Advanced Criminalistics **3 cr.**
Ballistics, serology, narcotics, poisons, firearms, identification, chromatography, alcohol tests, and hair identification. Two hours lecture and three hours laboratory per week.

Law E 415 Supervision in the Administration of Justice **3 cr.**
A consideration of the supervisory problems in the field of administration of justice. Emphasis on such topics as leadership, motivation, morale, discipline, public relations, communications, decision-making, and the training functions.

Law E 430 Comparative Study of Justice **3 cr.**
Comparison of the American system of administration of justice with those of other nations to include developed and underdeveloped countries.

Law E 440 Institutional Treatment of the Offender **3 cr.**
Modern philosophy and methods in the treatment of adult criminals and juvenile delinquents in correctional institutions.

Law E 445 Non-institutional Treatment of the Offender 3 cr.
Analysis of the principles and practices in probation and parole. Case method. Techniques of Supervision.

Law E 490 Crime and Modern Society 3 cr.
An analysis of the nature and extent of crime at the state, national, and international levels of government. Consideration of special problems in metropolitan areas, organized crime, the professional criminal and white collar crime. Crime control in a democratic society.

Law E 495 Seminar in Administration of Justice 3 cr.
A study of problems in the administration of justice. Reports based upon original investigation; reviews of recent books and periodical literature; topics of current interest.

Law E 497 Internship 3 cr.
A practicum designed to broaden the educational experience of students through appropriate observational work assignments with governmental agencies and private firms. Offered during the summer only.

Law E 499 Special Problems 3 cr.
Individual research under the direction of the staff. This course may be taken more than once for credit.

DEPARTMENT OF LEARNING RESOURCES AND MASS MEDIA

NORMAN W. SARGENT, Department Chairman

LAWRENCE D. BERGMAN
MERLE G. KLINGINSMITH
DONALD M. MacISAAC
WILLIAM McCAVITT
J. ROBERT MURRAY

LRes 301 Audio-Visual Education **2 cr.**
(Professional course required of all students in Education)
Prerequisite: General Psychology

A consideration of the needs for sensory techniques and the integration of all learning resources is given, with attention to the psychological processes involved. Through class and laboratory work the student will have an opportunity to become acquainted with materials and equipment and skilled in audio-visual techniques within the teaching field. Activities will include actual production of materials for class use and participation in their use.

LRes 371 Photography in Education **3 cr.**
This course is designed to give the beginning student a good introduction to photography, and to emphasize the potential value of teacher-made photographic materials in teaching.

The student will learn to use his own camera effectively, he will determine exposures, develop, contact print, and enlarge his own black and white negatives, experiment with natural and artificial lighting for a varietv of subjects, and shoot, develop, and mount his own color slides. Both the technical and the artistic aspects of photography will be discussed in lecture, and considerable time, both in and out of class will be devoted to practical laboratory work.

No prerequisite required. Student must, however, provide his own 35mm camera and an acceptable exposure meter in good condition. See instructor.

LRes 372 Motion Picture Production in Education **3 cr.**
This course will emphasize the possibilities for effective use of teacher-made films in the classroom. The student will learn to use his own 8mm or 16mm motion picture camera effectively. He will learn to choose the right film stock, to determine the correct exposure, to plan and direct the action, to break the material up into scenes for effective presentation, to edit the material shot, and to use natural and artificial lighting as the situation demands. Some work in script presentation will emphasize practical, individual and group work, supplemented with lecture and demonstration.

No prerequisite required. Student must, however, provide his own camera and an acceptable exposure meter in good condition. See instructor,

MATHEMATICS DEPARTMENT

MELVIN R. WOODARD, Chairman of Department

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IDA Z. ARMS
EDWIN W. BAILEY
ROBERT COATES
BLAINE C. CROOKS
DONALD D. DUNCAN
GUS DiANTONIO
RAYMOND D. GIBSON
MARLIN E. HARTMAN
WILLARD HENNEMAN
JOHN P. HOYT
EMMA LOU KEENE
WILLIAM F. LONG
CHARLES R. MADERER
JAMES H. MAPLE
DOYLE R. McBRIDE
RONALD L. McBRIDE
RONALD E. McCOY
WALLACE F. MORRELL
JoANNE MUELLER
CARL P. OAKES
GLENN W. OLSEN
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MILDRED M. REIGH
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ELWOOD R. SPEAKMAN
MERLE E. STILWELL
MARILYN E. VALLOWE
JACK R. WESTWOOD
GEORGE M. WHITSON
HALLEY O. WILLISON
RICHARD E. WOLFE
MELVIN WOODARD

COURSE DESCRIPTIONS

Math 101 Foundations of Mathematics **3 cr.**

This course is designed to familiarize students with some of the ideas underlying the development of mathematics and an elementary treatment of problem solving and decision making. The primary objective is not to develop "computational" skills but to study mathematics in its role as both an art and a science.

Topics to be studied include: numeration and number systems with special emphasis on recognizing patterns and structure; intuitive set theory and applications, including probability and statistics; and informal logic in its relation to mathematics, both in algebra and geometry.

Math 152 Algebra and Trigonometry **5 cr.**

Logic, number systems and equations; plane trigonometry; inequalities; functions and relations; complex numbers; theory of equations; mathematical induction; the binomial theory are the topics considered in this course.

Math 155 Computer Programming **1 cr.**

This course is designed to acquaint the student with the facilities in the area of computer programming available to him. The basic language rules of the Fortran compiler system and library programs and their use are studied. It is hoped that the student will then apply his knowledge in other courses throughout his college career.

Math 157 Analytic Geometry and Calculus I **4 cr.**

Prerequisites: Algebra and Trigonometry or permission of the department.

Analytic Geometry of the straight line; circle; and the

conics; polynomials and their graphs; elements of differential and integral calculus with applications involving polynomials.

Math 160 Elementary Numeration Theory I **3 cr.**

Prerequisite: 3 years high school academic mathematics.

This course is designed for those students whose major is elementary education and is one of the first two courses in the concentration of mathematics.

Among the topics included in this course are: Development and the structure of numeration systems; properties of the rational reals, their subsets and the operations defined on them; tests for divisibility; modular arithmetic; primes; factorization; fundamental theorem of arithmetic; introduction to mathematical systems.

Math 250 Elementary Numeration Theory II **3 cr.**

Prerequisite: Math 160

This course is a continuation of Math 160 and will include such topics as: Rules for divisibility; properties of and operations with real numbers; finite and infinite sets; Venn diagrams; order relations; modular and clock arithmetic; introduction to algebra and geometry; informal look at probability; truth tables; linear functions.

Math 251 Basic Concepts of Algebra (Elementary) **3 cr.**

Prerequisite: Math 160 and 250.

This course will include such topics as those touched upon in earlier courses but from a more general point of view. Generalization and abstraction in linear equations, systems of equations, sets, groups and fields, inequalities, absolute values, complex numbers, polynomials, algebraic structures and functions will be stressed.

Math 253 Theory of Equations **3 cr.**

Prerequisites: Analytic Geometry and Calculus I.

Among the topics considered are algebraic equations; determination of roots; algebraic solutions of cubic and quartic equations; systems of equations; determinants; matrices, and symmetric functions.

Math 257 Analytic Geometry and Calculus II **4 cr.**

Prerequisites: Analytic Geometry and Calculus I.

Differential and integral calculus of algebraic and transcendental functions with applications to the physical sciences.

Math 341 Theory of Numbers **3 cr.**

Prerequisite: Consent of Instructor.

A study of the foundation of number theory with special attention being given to such topics as repeating decimals and congruences; number theoretic functions; diophantine equations, continued fractions.

Math 350 Foundations of Informal Geometry (Elementary) **3 cr.**

Prerequisite: Math 160, 250, 251.

This course includes a discussion of such topics as: congruences, measurement, parallelim, similarity, concurrence of medians, altitudes, construction of proofs, practical applications, elements of spherical and plane coordinate geometry. This will be a course of greater depth and generality than that found in the secondary school and will be in line with the current curriculum revisions.

Math 351 Pre-Calculus Mathematics (Elementary) **3 cr.**

Prerequisites: Math 160, 250, 251, 350.

This course is designed to give an over-all view of fundamental topics in trigonometry, analytic geometry, probability and statistics, permutations and combinations, the binomial theorem, sequences and fundamental calculus.

Math 355 Foundations of Geometry I **3 cr.**

Prerequisite: Math 375.

The initial approach in this course is a synthetic treatment of Euclidean Geometry using Hilbert's axioms. Projective geometry is studied in some detail in order to acquaint the student with non-Euclidean geometry. The relationships between Euclidean, projective, and other non-Euclidean geometries are introduced.

Math 356 Foundations of Geometry II **3 cr.**

Prerequisite: Math 355.

This course treats and extends the topics of Math 355 from an analytic point of view. The study of projective transformations and representations of conics are the major topics.

Math 357 Analytic Geometry and Calculus II **4 cr.**

Prerequisite. Math 257.

This course will extend the background of the student in elementary calculus and will consider infinite series, Taylor's and Maclaurin's expansions, partial differentiation, multiple integrals, and an introduction to ordinary differential equations.

Math 361 Ordinary Differential Equations **3 cr.**

Prerequisite. Math 257.

In this first course in differential equations the emphasis is placed on techniques of solution and elementary physical applications. A thorough study is made of differential equations classified as order one—degree one, linear, and nonhomogeneous. Solution techniques involving the differential operator, the Laplace transform and infinite series are introduced.

Math 362 Probability and Statistics **3 cr.**

This course is intended for non-mathematics majors. The course emphasis is on applications as opposed to theoretical

developments of principles and formulas. The topics covered in this course are: frequency distributions, measures of central tendency, variation, elementary probability, sampling, estimation, testing hypothesis, and linear correlation and regression.

Math 363 Mathematical Statistics **3 cr.**

Prerequisite: Math 357.

This is an introductory course in the theory of mathematical statistics. The topics which are covered include: probability, hypothesis testing, parameter estimation, emperical frequency, distributions, theoretical frequency distributions, sampling theory, correlation, and regression.

Math 366 Computer Math I **3 cr.**

Language rules of the FORTRAN compiler system are presented. FORTRAN is used for writing digital computer programs which are compiled and executed on the College computer.

Math 367 Numerical Analysis **3 cr.**

Prerequisites: Math 366, 357, 361.

Errors in computation. Approximation of functions by polynomials. Iterative methods of solving equations. Matrices and systems of linear equations. Interpolation. Numerical differentiation and integration. Methods for solving ordinary differential equations on computers.

Math 371 Linear Algebra I **3 cr.**

Topics considered in this course are vector spaces, linear transformations, and matrices. The emphasis is on the theory for arbitrary finite dimensional spaces. Applications to Euclidean n-space are considered briefly.

Math 375 Introduction to Modern Mathematics **3 cr.**

This course is designed to acquaint the prospective teacher with new methods and content in mathematics. A thorough study of the development of the complex number system from a postulational viewpoint, starting with the natural numbers, through the integers, fractions, rationals, irrational, real, and finally the complex numbers, serves as a model of the rigorous methods used in mathematics today. Set theory and its applications in serving to unify topics in high school algebra and geometry are of primary importance. The study of mathematical structures, including that of groups, rings, integral domain, and fields, acquaints the student with the knowledge that there are many algebras and geometries and points out the true nature of a mathematical system. Boolean algebra and arithmetic modular systems serve as examples to illustrate these systems. An attempt is made throughout the course to strengthen, but not replace, the traditional mathematics with the new.

Math 376 Abstract Algebra **3 cr.**

This course consists of a development of the theory of integral domains, fields, rings, and groups. It is designed to develop the student's power to think for himself and to improve

his ability to construct formal proofs.

Math 381 Advanced Calculus I **3 cr.**

Prerequisite: Math 357.

Topics from the calculus are treated with a more rigorous point of view. The course consists of a study of the real number system, point sets, functions, sequences, limits, continuity and uniform continuity, differentiation, indeterminate forms, and the Riemann integral.

Math 382 Advanced Calculus II **3 cr.**

This course includes a study of functions of more than one variable, partial differentiation, multiple integration, line and surface integrals, Green's theorem, Stokes' theorem, infinite series, convergence and uniform convergence, and improper integrals.

Ed 451 Teaching Mathematics in the Secondary Schools **3 cr.**

The major objective of the course is to prepare teachers of mathematics for the modern secondary schools. The principal activities in the class are the preparation and presentation of lessons on concepts from the secondary schools mathematics courses; study of the principles of teaching and learning; observations; study of current mathematics curricula; and learning to use curriculum materials effectively.

Math 452 Seminar in Mathematics **1 cr.**

This course requires the student to do independent study in some area of mathematics beyond the scope of the courses he has taken. The course is conducted in one of two ways. In the first method the student chooses the area for investigation upon the approval of the instructor. Upon completion of the study, the student gives an oral presentation of his findings to other members of the group. In the second method the various instructors offer seminars in selected topics. The student chooses the topic of interest to him and the class studies the particular topic in depth.

Math 461 Computer Math II **3 cr.**

Prerequisite: Math 366.

Digital computers are analyzed as to size, type, usage, storage, auxiliary storage, input-output facilities and monitors. Symbolic programming and compiler systems are studied.

Math 471 Seminar: Research Usage of Computers

Prerequisite: Math 461.

This course deals with selected topics using advanced programming techniques.

El 313 Teaching Mathematics in the Elementary School **3 cr.**

Prerequisite: Math 101.

In this course emphasis will be given to the place of arithmetic in the elementary school and to the recent changes in curriculum and method; to techniques for developing concepts and processes; to recent research in the field of arithmetic; and to books and materials helpful to prospective teachers. Observation of master teachers at work will be planned.

MILITARY SCIENCE

LTC. CHARLES B. STEVENSON, Chairman of Department

LTC WILLIAM J. MARTIN
MAJ ROBERT W. BUTLER
MAJ KEITH F. VANSANT
MAJ FRANCIS B. CAMPI
MAJ GEORGE F. MERGNER
MAJ FELIX D. SIMPSON
CPT BRUCE K. HEIM
MSG JOHN D. DALE, JR.
SFC LEWIS J. POWELL, JR.
SSG GEORGE R. SERLING
SSG THEODORE DECHMAN III
SSG GEORGE W. DETWEILER
SSG FRANK D. PANKEY

Indiana University of Pennsylvania, Indiana, Pennsylvania, is authorized a Senior Division, Reserve Officers Training Corps unit. The mission is to provide junior officers who have the qualities and attributes essential to their progressive and continued development as officers of the Army of the United States.

REQUIREMENTS FOR ENROLLMENT

The general requirements for enrollment in the ROTC are that the student be a citizen of the United States, physically qualified as prescribed by the Department of the Army, accepted by the institution as a regularly enrolled student, not less than 14 years of age, but less than 24 years of age at the time of enrollment. For continuance in the ROTC the student must successfully complete such general survey or screening tests as are given to determine eligibility for admittance to the Advanced Course and agree in writing upon admission to the advanced course to complete the course of instruction offered, unless released by the Department of the Army. Veterans may receive credit for portions of the ROTC military course for military service completed prior to enrollment in ROTC.

WHAT ROTC OFFERS

Uniforms, equipment, ROTC textbooks are issued without cost to formally enrolled cadets.

Students having successfully completed the Basic Course, or having at least four months of active service in the Armed Forces, and meeting the Advanced Course admission requirements are paid a retainer fee, currently amounting to $50.00 per month during the time they are taking the Advanced Course.

After the student completes the Advanced Course and receives his baccalaureate degree from the college he is eligible for a commission as a second lieutenant in the United States Army Reserve.

Students who have completed the first year Advanced Course and have displayed outstanding qualities of military leadership, high moral character, and definite aptitude for

military service are designated "Distinguished Military Students." Students so honored who maintain the standards until graduation are designated "Distinguished Military Graduates," and are eligible for appointment in the Regular Army.

Policies affecting enrollment and continuance of students in the Senior Division of the Reserve Officers Training Corps are included in the provisions of the Selective Service Act of 1950. This Act provides for military deferment of students (certain basic course students upon request, and all advanced course students) until completion of their academic course under the following conditions:

1. Students enrolled in the ROTC must remain in good standing in both their academic and military courses.
2. They must demonstrate proper and sufficient aptitude and leadership characteristics ultimately to qualify them for appointment as commissioned officers.
3. They must attend a summer training camp, when ordered by competent authority (usually at the end of the Junior year).
4. They are required to sign an agreement to accept a commission in the Army, if and when tendered, and to serve not to exceed two (2) years on active duty as an officer, subject to call by the Secretary of the Army.

SPECIAL FEES

An Activity Fee of $3.00 is required of all ROTC Cadets to defray the cost of a name tag, cadet handbook, and the Military Ball.

CURRICULUM IN MILITARY SCIENCE

The Military Science curriculum covers four years and is divided into two courses: The Basic Course and the Advanced Course.

THE BASIC COURSE

The first two years of Military Science comprise the Basic Course which furnishes a background in basic military subjects. A minimum of three hours instruction each week is required for the MS 101 and 102 courses and minimum of four hours for courses 203 and 204.

1st Year

MS 101 Military Science I **2 cr.**
Instruction in Organization of the Army and ROTC; Individual Weapons and Marksmanship; and Leadership.

MS 102 Military Science I **2 cr.**
Instruction in United States Army and National Security; and Leadership.

2nd Year

MS 203 Military Science II **2 cr.**
Instruction in Map Reading; Introduction to Tactics and Operations; and Leadership.

MS 204 Military Science II **2 cr.**
Instruction in American Military History; and Leadership.

THE ADVANCED COURSE

The second two years comprise the Advanced Course, each year of which consists of 105 hours of instruction in Military subjects and 45 hours of instruction in selected academic fields approved by the Professor of Military Science. Students who clearly demonstrate during their attendance in the Basic Course the qualities necessary to become a Reserve Officer of the U.S. Army may be selected for the Advanced Course.

For admission to this course a student must fulfill the following: have completed the Basic Course; be selected by the Professor of Military Science and the President of the University; be 26 years of age or under at time of enrollment; meet physical requirements as established by the Department of the Army; execute a contract with the Government to finish the course, attend a six-week summer camp and accept a commission in the United States Army Reserve, if tendered. When the contract is signed, completion of the Advanced Course becomes a requirement for graduation unless the contract is cancelled by the Department of the Army.

3rd Year

MS 305 Military Science III **3 cr.**
Instruction in Principles of Leadership; Military Teaching Methods; Branches of the Army; and Leadership Laboratory.

MS 306 Military Science III **3 cr.**
Instruction in Infantry Tactics and Communication; Pre-Camp Orientation; Physical Training; Counterinsurgency; and Leadership Laboratory.

4th Year

MS 407 Military Science IV **3 cr.**
Instruction in Operations, Company Duties; Army Administration; Military Law; and Leadership Laboratory.

MS 408 Military Science IV **3 cr.**
Instruction in Service Orientation; Role of the United States in World Affairs; Map Reading; Airmobile Operations; and Logistics.

SUMMER CAMP

The six weeks of summer camp is attended by students upon completion of the first year of the Advanced Course of Military Training. Time at camp is devoted to the practical application and demonstration of principles and theories taught during the school year. While at camp each student will receive lodging, subsistence, uniforms, medical care, reimbursement for travel and pay in the amount of one hundred and fifty one dollars and ninety five cents ($151.95) per month.

MUSIC DEPARTMENT

WILLIAM C. WILLETT, Chairman

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ROBERT E. BERNAT
DAVID T. BORST
WALLIS D. BRAMAN
ROBERT W. BURGGRAF
CATHERINE C. CARL
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GLADYS DUNKELBERGER
OLIVE M. FORNEAR
EDWIN J. FRY
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WALTER A. GOLZ
ARVILLA T. HARROLD
H. EUGENE HULBERT
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C. DAVID McNAUGHTON
RUSSEL C. NELSON
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LAURENCE J. PERKINS
PETER J. POPIEL
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LAWRENCE C. STITT
PHILIP J. SWANSON
RICHARD E. THORELL
EVA VOUKLIZAS
J. HERBERT WILDEBOOR

COURSE DESCRIPTIONS

GENERAL EDUCATION

Mus 101 Introduction to Music 3 s.h.

The course "Introduction to Music" presumes no technical background, but does utilize as fully as possible the varied musical experiences of each individual to help him extend his interest as far as possible. One or two field trips are planned each semester to Pittsburgh to attend the Pittsburgh Opera and/or the Pittsburgh Symphony. In addition, various concerts of college organizations, cultural life events, and visiting artist concerts are required to augment the listening experiences of the student.

MUSIC THEORY

Mus 111 Sight Singing I 2 s.h.

Sight Singing I is designed to develop the student's skill at interpreting written music by the use of his own voice. Areas of study include: all major and minor scales; treble, alto, tenor, and bass clefs; all diatonic intervals; duple and triple meter with rhythmic dictation drills; phrase-wise thinking; and elementary form analysis. The sol-fa syllables with movable do are used.

Mus 112 Sight Singing II 2 s.h.

Prerequisite: Sight Singing I with a mark of C or better.

A continuation of the development of skills in the areas of Sight Singing I, as well as the following additional areas: sensitivity to intonation, part singing, compound meters, written melodic and rhythmic dictation.

Mus 113 Ear Training I 1 s.h.

Ear Training I involves dictation skills and notation in the following areas: primary harmonies in all inversions, and melodic dictation with implied and actual harmonies.

Mus 114 Ear Training II **1 s.h.**

Prerequisite: Ear Training I with a mark of C or better.

A continuation of the development of dictational and notational skills of Ear Training I as well as the following areas: secondary triads, seventh chords, and modulation to related keys.

Mus 115 Theory I **3 s.h.**

Theory I includes the playing and writing of primary harmonies in all inversions, using the chorale style of harmonization; and the study of phrase and period through the analysis and study of melodies to be harmonized.

Mus 116 Theory II **3 s.h.**

Prerequisite: Theory I with a mark of C or better.

The content of Theory I is broadened to include secondary triads and seventh chords, mastery of the circle of fifths, and modulation to related keys. Harmonization in the piano style is introduced and developed as well as the writing of original melodies. The double period and phrase group serve as units for analysis.

Mus 215 Theory III **3 s.h.**

Prerequisites: Theory II, Sight Singing II, and Ear Training II, all with a mark of C or better.

Theory III includes the playing and writing of chromatic harmonies, modulation to remote keys, writing for male voices, writing for women's voices, the study and analysis of songforms and simple rondo forms, and harmonic dictation.

Mus 216 Theory IV **3 s.h.**

Prerequisite: Theory III with a mark of C or better.

In addition to the further development of many of the areas of study in Theory III, Theory IV also includes: harmonization at the keyboard; transposition at the keyboard; further development of chromatic harmony; study of the rondo, sonatina, and sonata-allegro forms; and original writing.

Mus 217 Keyboard Harmony I **1 s.h.**

Prerequisite: A nominal amount of facility at the keyboard.

Keyboard Harmony I is designed to develop keyboard skills in the student so he may realize and produce in sound the basic harmonic progressions involved in the primary chords in all inversions.

Mus 218 Keyboard Harmony II **1 s.h.**

Prerequisite: Keyboard Harmony I with a mark of C or better.

A continuation of Keyboard Harmony I involving skills with secondary chords and their dominants, chromatic harmony and more complex progressions.

Mus 304 Form and Analysis I 2 s.h.

Prerequisite: Theory IV.

A thorough study of the smaller forms of music. The student will analyze as many of the smaller forms as possible, both through listening and reading of the works.

Mus 305 Form and Analysis II 2 s.h.

Prerequisite: Form and Analysis I.

A thorough study of the larger forms of music in the same manner as Form and Analysis I.

Mus 306 Counterpoint I 2 s.h.

Prerequisite: Theory IV.

After an intensive study and analysis of the style of the 16th Century contrapuntal writing, the student will do original writing using the techniques and devices of the period. As time permits, the same approach will be made to explore the style of the 17th and 18th Century composers.

Mus 307 Counterpoint II 2 s.h.

Prerequisite: Counterpoint I.

A continuation of the study, analysis, and restricted writing of the 17th and 18th Century composers. Consideration will be given to the free contrapuntal techniques used by later composers.

Mus 308 Fugue and Canon 2 s.h.

Prerequisite: Counterpoint I.

The application of contrapuntal techniques within these two specific forms through analysis, assigned exercises, and creative writing.

Mus 309 Orchestration I 2 s.h.

Prerequisite: Theory IV.

All the instruments of the orchestra are studied from the viewpoint of their contribution to the total sound of the ensemble. Ranges and timbres are considered as well as actual arranging of selected music for each section, full orchestra, band, and other instrumental organizations. Whenever possible, the arrangements are performed in class or by one of the organizations of the college.

Mus 310 Orchestration II 2 s.h.

Prerequisite: Orchestration I.

A continuation of Orchestration I with more emphasis placed on larger projects and the programming of outstanding works in university concerts.

Mus 315 Theory V 3 s.h.

Prerequisite: Theory IV.

Many of the harmonic idioms of the past half century will be considered, such as: comparative analysis of dissonance; polytonality; polyrhythms; atonalism and the 12 tone system;

and microtonalism. Original writing in these styles will be required.

Mus 411 Composition I **2 s.h.**

Prerequisite: Theory IV.

Instruction in Composition I will of necessity be highly individualized due to the uniqueness of the creative process. Compositional devices will be studied through the analysis of works by major composers. Students will do original works in the smaller forms of music.

Mus 412 Composition II **2 s.h.**

Prerequisite: Composition I.

A continuation of Composition I with the emphasis placed more on the larger forms of music. Outstanding works will be programmed by university organizations.

MUSIC LITERATURE AND HISTORY

Mus 220 Music Literature I **1 s.h.**

Major works of the Eighteenth Century will be studied and analyzed as to form, style, and their place in the musical world of the various periods.

Mus 221 Music Literature II **1 s.h.**

Major works of the Nineteenth Century will be covered in the same manner as Music Literature I.

Mus 301 History of Music I **3 s.h.**

A study of the development of music from the ancient Greek and Roman cultures through the Baroque period. Although the approach is an historical one, considerable analytic listening is required.

Mus 302 History of Music II **3 s.h.**

Starting with the Eighteenth Century with Haydn and Mozart, History of Music II is the study of the development of music to the present. Analytic listening is required through all available sources.

Mus 316 Literature of the Major I **2 s.h.**

The student will research the literature of his major instrument or voice with the assistance of his private instructor and the instructor of the course.

Mus 317 Literature of the Major II **2 s.h.**

The student will continue his research from Literature of the Major I.

Mus 320 Music of the Ancient World **3 s.h.**

Prerequisites: History of Music I and II.

A concentrated study of music from the early Greeks up to the Middle Ages, including considerable emphasis on plainsong or Liturgical music of the early church.

Mus 321 Music of the Middle Ages 3 s.h.

Prerequisites: History of Music I and II.

Starting with the Jongleurs, Troubadors, and Trouveres of the Early Middle Ages, this course deals with the literature of music through English and Burgundian Schools at the close of the Middle Ages.

Mus 322 Renaissance Music 3 s.h.

Prerequisites: History of Music I and II.

Beginning with Ockeghem and ending with Palestrina and his contemporaries, the music literature of this age is carefully and thoroughly studied.

Mus 323 The Baroque Era 3 s.h.

Prerequisites: History of Music I and II.

The Baroque Era extends from Monteverdi through Bach and Handel, and considers both vocal and instrumental forms, styles, and practices of the era.

Mus 324 Eighteenth Century Music 3 s.h.

Prerequisites: History of Music I and II.

Although Mozart and Haydn comprise the greater portion of 18th Century music, the Rococo Period involves D. Scarlatti and C. P. E. Bach as well. The mature development of the sonata and symphony comprise a considerable portion of this study.

Mus 325 The Early Romantic Period 3 s.h.

Prerequisites: History of Music I and II.

Beethoven, Schubert, Rossini, Weber, Mendelssohn, Berlioz, Schumann, and Chopin are the major composers to be studied in the Early Romantic Period.

Mus 326 The Late Romantic Period 3 s.h.

Prerequisites: History of Music I and II.

Wagner, Verdi, Glinka, Bruckner, Meyerbeer, Liszt, Gounod, Brahms, Offenbach, Smetana, J. Strauss, Grieg, Bizet, Moussorgsky, Saint-Saens, Tschaikowsky, Massenet, Franck, Borodin, Rimski-Korsakoff, Wolf, R. Strauss, Mahler, Faure, Puccini, Dvorak, MacDowell, and Elgar are the major composers of this study.

Mus 420 Contemporary Music 3 s.h.

Prerequisites: History of Music I and II.

Beginning with Debussy, Ravel and the other impressionists, touching on Schoenberg, Stravinsky, Webern, Honneger, Milhaud, et al. Contemporary Music ends with today and tomorrow. Various trends, styles, techniques are noted; judgments are attempted on the more experimental forms; and limited predictions of trends are ventured.

Mus 421 American Music 3 s.h.

Prerequisites: History of Music I and II.

American Music is a study of the History and Literature

of Music in America from 1600 to the present day. Early American musical heritages are traced from pre-revolutionary America to our day.

CONDUCTING

Mus 311 Fundamentals of Conducting **2 s.h.**

Emphasis will be placed on the fundamental physical skills of the conducting process. Various beat patterns will be mastered and elementary score reading and interpretation will be considered.

Mus 312 Choral Conducting **2 s.h.**

Prerequisite: Fundamentals of Conducting with a mark of C or better.

Choral Conducting will provide the opportunity for the student to apply his basic conducting techniques to the choral area. Each student will conduct the rest of the class in many of the standard choral works of the literature. Also a survey of suitable literature, organizational problems, voice testing, rehearsal techniques, program building, interpretation, and diction will be included.

Mus 313 Instrumental Conducting **2 s.h.**

Prerequisite: Fundamentals of Conducting with a mark of C or better.

Instrumental Conducting will provide the student with the opportunity to apply his basic conducting skills to the various instrumental ensembles. Each student will conduct the rest of the class as well as the available instrumental ensembles in the department. Also a survey of suitable literature, organizational problems, audition procedures, rehearsal techniques, program building, and interpretation will be considered.

Mus 401 Choral Score Reading **2 s.h.**

Prerequisites: Harmony IV, and Choral Conducting.

Choral Score Reading is designed for the student who wishes to further develop his skills at interpreting choral scores. Some of the units are: reading 3, 4, 5, and 6 line scores; problems of editing music of various periods; further development of skill with various clefs; developing a sense of tempi; and practice in score reduction at the keyboard.

Mus 402 Instrumental Score Reading **2 s.h.**

Prerequisites: Harmony IV, and Instrumental Conducting.

Instrumental Score Reading serves a similar purpose. Some of the units are: developing skill in reading 12 lines to full orchestral or band scores of 32 lines; editing and bowing problems of various periods; developing skill with clefs and transpositions; developing a sense of tempi; and reducing full scores at the keyboard.

MUSIC EDUCATION

El 211 Music for the Elementary Grades **2 s.h.**
(See the Elementary section for a course description.)

El 212 Teaching Music in the Elementary Grades **3 s.h.**
(See the Elementary section for a course description.)

Mus 204 Rhythmic Activities I **1 s.h.**
Rhythmic Activities I develops musical perception through physical response; stimulates creative imagination through group and individual interpretations; and promotes bodily coordination, poise, and precision.

Mus 205 Eurythmics II **1 s.h.**
Prerequisite: Rhythmic Activities I
Rhythmic Activities II continues the skill development begun in Eurythmics I and further provides each student with the opportunity to direct others; to master and to teach a repertory of folk dances; and to organize the work to fit the needs and capacities of elementary pupils.

Mus 331 Elementary Methods **2 s.h.**
Included in Elementary Methods are the following topics: analytical study of texts, recordings, equipment, instruments, and other material suitable to musical development of elementary pupils; proper treatment of the child voice; selection, use, and teaching of rote songs; rhythmic activities and development; music reading; part singing; planning and organization; guided observations; and evaluation techniques.

Mus 333 Secondary Methods **2 s.h.**
The following topics will be treated: the General Music Class, choral organizations, the changing voice, techniques of instruction including team teaching and programmed learning, high school theory courses, high school music literature courses, scheduling, administrative problems, curriculum development, evaluation of materials and equipment, evaluative techniques, and guided observations.

Mus 334 Instrumental Methods **2 s.h.**
A treatment of the necessary understandings, techniques, equipment, and materials necessary to develop an effective instrumental music program in the public schools. Demonstrations and laboratory work are designed to give the student the competencies needed to meet successfully the various teaching situations in instrumental music from the grades through the high school. Guided observations are required.

Mus 405 Piano Pedagogy **2 s.h.**
Prerequisites: Junior Standing in Piano, and a piano major or minor.
A survey of all current and significant past developments in the teaching of piano both privately and in small and large

classes. The various piano methods are analyzed, compared, criticized, and adapted to each individual's use.

Mus 406 Voice Pedagogy **2 s.h.**

Prerequisites: a voice major or minor, and permission of the instructor.

A survey of all current and significant past developments in the teaching of voice both privately and in small and large classes. The various vocal methods are analyzed, compared, criticized, and adapted to each individual's use.

Mus 407 Master Class in Organ **2 s.h.**

Prerequisites: for organ majors only with the organ instructor's permission.

From time to time the organ instructor will accept from four to eight organ majors for this course. Every student will observe every other student's instruction and demonstrations of various techniques of teaching organ will be given.

Mus 408 Marching Band Techniques **2 s.h.**

The following topics are considered; building a band show; alignment of ranks and files; development of a standard pace of 6 to 5 and 8 to 5; selection of music; instrumentation; techniques of developing morale; and fundamentals of uniform design.

Ed 421 Student Teaching **12 s.h.**

The music major will begin his practice teaching with observations and various simple teaching assignments, gradually assuming greater teaching responsibilities on the elementary, junior and senior high school levels in instrumental and vocal music. A university faculty member coordinates the work of the student teacher and his school supervisor.

Ed 422 Professional Practicum (Including School Law) 2 s.h.

Significant problems of an advanced nature, and closely related to student teaching, are introduced in order to insure further professional growth. Observing of other teaching situations, reading of books and professional journals, along with reports and discussions at conferences, will aid in this growth.

APPLIED MUSIC

Class Instruction

The following courses are designed to acquaint the student with basic skills in each particular area. The classes are conducted in a similar manner to those in the public schools but for different purpose.

Mus 151 Class Voice I ..... **1 s.h.**
Mus 152 Class Voice II ..... **1 s.h.**
Mus 153 Class Piano I ..... **1 s.h.**
Mus 154 Class Piano II ..... **1 s.h.**
Mus 155 Class Strings I ..... **1 s.h.**
Mus 156 Class Strings II ..... **1 s.h.**
Mus 157 Class Percussion I ..... **1 s.h.**
Mus 158 Class Percussion II ..... **1 s.h.**

Mus 159 Class Brass I ..... 1 s.h.
Mus 160 Class Brass II ..... 1 s.h.
Mus 161 Class Woodwinds I ..... 1 s.h.
Mus 162 Class Woodwinds II ..... 1 s.h.
Mus 351 Italian Diction ..... 2 s.h.
Mus 352 Spanish Diction ..... 2 s.h.
Mus 353 French Diction ..... 2 s.h.
Mus 354 German Diction ..... 2 s.h.

Private Instruction

One semester hour credit for each number. Each semester hour of credit requires one half-hour lesson and five hours practice per week for one semester. The instructor will determine which series applies.

111-150 Series, for beginners or near beginners
211-250 Series, for intermediate students
311-350 Series, for advanced students
411-450 Series, for artist students
available in the following performance areas:

Piano (Pno)
Organ (Ogn)
Voice (Vce)
Harp (Hrp)
Violin (Vln)
Viola (Vla)
Cello (Cel)
Bass Viol (BsV)
Clarinet (Clar)
Flute (Fl)
Oboe (Ob)
Bassoon (Bssn)
Saxophone (Sax)
Trumpet (Trpt)
French Horn (FrH)
Trombone (Trb)
Tuba (Tba)
Percussion (Perc)
Baritone Horn (BaH)

Ensembles

If one of the music ensembles is in need of a particular player because of the uniqueness of the instrument or voice, the student may be required to participate even though he has fulfilled the above requirements.

Mus 120 Percussion Ensemble
Mus 121 Chamber Ensembles
Mus 122 Brass Choir
Mus 123 Woodwind Choir
Mus 124 Indiana Marching Band
Mus 125 Concert Band
Mus 126 Indiana Wind Ensemble
Mus 127 Indiana Glee Club
Mus 128 Women's Chorus
Mus 129 Opera Workshop
Mus 130 University Symphonette
Mus 131 Indiana Symphony Orchestra
Mus 201 University Chorale

Ensembles carry no credit. The student will receive a mark of S or U.

PHILOSOPHY DEPARTMENT

ROBERT M. HERMANN, Chairman

NORAH D. DAVIS RICHARD S. DAVIS ARTHUR KANNWISHER

The Philosophy Department offers, in addition to the introductory course, a variety of electives designed to serve the needs of two kinds of students. Those whose primary interests are in other disciplines will find one or more philosophy courses which relate directly to their fields. Most of these carry no prerequisite.

Students wishing to major in philosophy must take a total of 33 semester hours in the field, including Phil. 221, 222, 324, 325, 328, and 430. Minors are required to take a total of 21 semester hours, including Phil. 221, 222, 324, 325, and 328. While course numbers indicate the years in which courses are expected to be scheduled, some flexibility is permitted. It should be noted, however, that Phil. 120 is prerequisite to several later courses. Exceptions to this requirement may be made only with departmental permission.

GENERAL EDUCATION COURSES

Phil 120 Introduction to Philosophy **3 cr.**

A survey of basic issues and fundamental concepts. Designed for the beginning student, this course aims at the development of critical attitude toward the major "isms" of philosophy. Emphasis is placed upon an understanding of problems in the field, rather than upon individual thinkers.

Phil 110 Basics of Religious Thought and Practice **3 cr.**

A non-sectarian and introductory course in which material from several academic disciplines is brought to focus on religion as an objective problem. Defining "religion"—forms of worship in prehistoric cultures—regional and national religions of the past—history and comparative theology of major contemporary faiths—religious behavior viewed psychologically and sociologically—some philosophical perspectives.

PHILOSOPHY ELECTIVES

Phil 221 Logic I—General Logic **3 cr.**

The Art of Reasoning—The Science of Critical Thinking. Designed for the general student, this course aims at a basic familiarity with the broad range of problems currently of interest to logicians, together with the acquisition of at least minimal skill in the evaluation of inferential claims.

Phil 222 Ethics **3 cr.**

An introduction to significant ethical theory. Selected writings both ancient and modern are examined and discussed

critically. The student is encouraged not only to develop a consistent ethical formulation of his own, but to make application of each view studied to current moral problems.

Phil 321 Logic II — Deductive Systems 3 cr.
Prerequisite: Phil 221.
More technical in content than **Logic I, Logic II** is concerned primarily with deduction. Students are given a substantial grasp of modern symbolic axiom systems. Concrete applications of symbolic logic will be examined, as well as some of the more sophisticated problems and paradoxes which currently vex logicians.

Phil 323 Political Philosophy 3 cr.
An examination of major theories of political organization. Such substantial works as Plato's **Republic**, Aristotle's **Politics**, Hobbes' **Leviathan**, Rousseau's **Social Contract**, and Locke's **Second Treatise of Civil Government** are studied in depth. (See also in Pol. Sci. electives)

Phil 324 History of Philosophy I 3 cr.
Prerequisite: Phil 120.
A survey of the major thinkers of the ancient and medieval worlds with emphasis on the essential thought of selected philosophers. Special attention will be given to the pre-Socratics, Plato, Aristotle, Augustine, and Aquinas.

Phil 325 History of Philosophy II 3 cr.
Prerequisite: Phil 120.
A continuation of Phil 324 beginning with 17th century rationalism and ending with the 19th century precursors of contemporary philosophies. (It is not required but strongly recommended that Phil 324 and 325 be taken in sequence.)

Phil 327 American Philosophic Thought 3 cr.
Prerequisite: Phil 120.
A study of the more original and influential philosophic postures developed in America from the colonial period to the present, and of the men who gave them their most complete expressions.

Phil 328 Aesthetics
Studies in the meaning and value of man's aesthetic experience. The nature and significance of art — its role in human experience — bases of aesthetic judgments. Theories of art from Plato to Dewey are examined and discussed critically.

Phil 329 Philosophy of Religion 3 cr.
An examination of the major theories and problems of philosophy in relation to religion. Such topics as the existence of God, evil, religious language, existentialism, and mysticism will be explored. The works of thinkers such as Hume, Kant, Aquinas, Tillich, Buber, Royce, Stace, Kierkegaard, J. Huxley, and Augustine will be studied.

Phil 330 Philosophy of Science **3 cr.**

A survey of the basic nature and structure of scientific thought. Problems of physical and social science will be examined in relation to philosophy. The nature of scientific laws, induction, causation, the logic of explanation, probability, the role of mathematics in science, and the place of value in science will be explored. No special or technical background required.

Phil 430 Readings Colloquium **3 cr.**

Designed for the student making a primary concentration in philosophy, this course centers around discussion of an intensive reading program, and includes a research project of thesis quality. Admission by special permission only.

PHYSICS DEPARTMENT

RICHARD E. BERRY, Chairman

JAMES L. BOETTLER
GARY L. BUCKWALTER
JERRY K. EDDY
JOHN K. MATOLYAK
PATRICK J. McNAMARA
DAVID L. RAMSEY
DANIEL G. REIBER
RICHARD D. ROBERTS
PAUL M. WADDELL
ROBERT L. WOODARD
PATSY A. ZITELLI

PHYSICS COURSES

Phys 111-112 Physics I and II **4 cr. each**

This is a two-semester non-calculus course in general college physics. It is intended to furnish the physics major with the foundation he needs in physics, and also to supply majors in other sciences with a sufficiently broad coverage of physics to help them appreciate physics, including its recent advances. Subject areas covered are: classical mechanics, heat, wave motion, electricity, magnetism, light, atomic and nuclear physics, and an elementary introduction to quantum mechanics and relativity. Three hours lecture and three hours laboratory per week.

Phys 222 Mechanics I **3 cr.**

Prerequisites: Phys 111, 112, Math 257

The mechanics included in Physics 111 is recast in the language of calculus and extended to the following topics: Dynamics of a particle under different force laws, central force including planetary and satellite motion, energy in particle dynamics, statics including virtual work, systems of particles and an introduction to kinetic theory and statistical mechanics. Three hours lecture per week.

Phys 223 Mechanics II **3 cr.**

Prerequisites: Phys 222, Math 357.

This course, the sequel to Physics 222, includes: mechanics of a rigid body, constraints, oscillations, wave motion, mechanics of fluid and introduction to advanced mechanics, relativistic mechanics, and wave mechanics. Three hours lecture per week.

Phys 231 Electronics **4 cr.**

Prerequisites: Physics 111 and 112, Math 157.

This course introduces electronic circuitry and instrumentation. A brief introduction to circuit theory includes direct current transients, alternating currents, and response of simple networks to pulses and square waves. This theory is then applied equally to vacuum-tube circuits and transistor circuits. The laboratory provides opportunity for each student to use dual-trace oscilloscopes, signal generators, and power supplies. The following concepts are emphasized in the course: frequency response, input and output impedance, feedback, and elec-

tronic noise. Three hours lecture and three hours laboratory per week.

Phys 242 Optics **4 cr.**

Prerequisites: Phys 111, 112, Math 257.

This course deals with such topics as reflection and refraction at surfaces, optical instruments, polarization, interference and diffraction of light. Three hours lecture and three hours laboratory per week.

Phys 322 Electricity and Magnetism I **3 cr.**

Prerequisites: Phys 111, 112, Math 357.

The first part of the course is devoted to a review of vector calculus including gradient divergence and curl. The topics covered include electrostatic potential theory, dielectrics, dipole theory and magnetostatics. Maxwell's equation for static fields are employed in solving problems. Legendre's polynomials and other approximation methods are used to solve Laplace's equation. Three hours lecture per week.

Phys 323 Electricity and Magnetism II **3 cr.**

Prerequisite: Phys 322.

This course, a sequel to Phys 322, develops the time dependent form of Maxwell's. The principal topics included are electromagnetic induction, vector potential, magnetism, radiation fields, and poynting vector. Three hours lecture per week.

Phys 331 Atomic and Nuclear Physics **4 cr.**

Prerequisites: Phys 111, 112, Math 357.

This course is an introduction to the particle and wave properties of matter, atomic structure, and radioactivity. The laboratory experiments will include many of the basic experiments in atomic and nuclear physics. Three hours lecture and three hours laboratory per week.

Phys 342 Heat and Thermodynamics **4 cr.**

Prerequisites: Phys 111, 112, Math 357.

Thermometry, the laws of thermodynamics, low temperature physics, Carnot cycle, entropy, the properties of ideal gas, and heat transfer are studied. In the laboratory the fundamental laws are tested and an introduction is given to high vacuum techniques and cryogenics. Three hours lecture and three hours laboratory per week.

Phys 421-422 Selected Experiments I and II **3 cr. each**

Prerequisites: Phys 231, 331.

These two courses offer training in lab skills and modern instrumentation involved in individual research. The skills taught are those needed for independent research in industry and in thesis research projects in universities; as such, it is also useful to educators, who need to know the methods of the research scientist, and need the skills in using modern equipment in teaching. The two courses are independent of each other.

Selected Experiments I includes experiments selected from the following topics: advanced optics, microwaves, radio and optical astronomy, semi-conductor properties, cryogenics, and classic experiments in atomic physics.

Selected Experiments II includes experiments selected from the following topics: Mössbauer effect, laser modulation, magnetic resonance, cosmic rays, and classic experiments in nuclear physics. Six hours laboratory per week.

Phys 472 Modern Physics **3 cr.**

Prerequisite: Phys 483.

Current topics in modern physics of interest to the students and the instructor will be covered at an intermediate level. Possible topics are elementary particles, cosmic rays, spin resonance, solid state physics, accelerators, nuclear scattering, nuclear forces, nuclear reaction theory, relativity, kinetic theory and statistical mechanics. Three hours lecture per week.

Phys 483-484 Quantum Mechanics I and II **3 cr. each**

Prerequisites: Phys 222, 331, Math 361.

These courses develop quantum mechanics following the method of Schrodinger. The theory is applied to the properties of the harmonic oscillator, the hydrogen atom, the electron in a magnetic field and the radioactive decay of alpha particles. The general principles of quantum mechanics are related to atomic structure and the periodic table. Three hours lecture per week.

Phys 498 Problems in Physics **1-4 cr.**

Prerequisites: Phys 111, 112, Math 157.

This course provides an opportunity to study special topics in physics such as Fourier Series, Vibrating String Theory, Vector Analysis, or to carry on experimental projects such as constructing lasers, and analyzing the corona of the sun. In general, the student deals in a more sophisticated manner with topics which receive elementary treatment in the regular courses.

GENERAL EDUCATION COURSES

Sci 105 Physical Science I **4 cr.**

A study of the physical world, focusing on the fundamental concepts of matter and energy. Emphasis is placed on what science is, how scientific knowledge is acquired, and the emergence of the more fundamental chemistry, geology, and physics. Three hours lecture and two hours laboratory.

Sci 106 Physical Science II **4 cr.**

See course descriptions in Chemistry Department.

POLITICAL SCIENCE DEPARTMENT

RICHARD F. HEIGES, Chairman

PATRICK A. CARONE
BRUCE G. JENKINS
DAVID S. KEENE
RAYMOND L. LEE
ROBERT L. MORRIS
DOROTHY A. PALMER
EDWARD E. PLATT
JAMES L. REILEY
BERT A. SMITH
JOHN W. SMITH

COURSE DESCRIPTIONS

PolS 111 American Citizenship **3 cr.**

This course is largely concerned with our Federal and State governments. Emphasis is placed upon the constitutional basis of government, organization and structure of government, division of governmental powers, Federal and State relations, public finance, organization and role of political parties, and the place of the citizen in government. In a study of the functions and services of government, attention is given such problems as foreign policy and world relations, economic and social security, and the promotion of the general welfare.

PolS 120 Introduction to Political Science **3 cr.**

An introduction examination of the methodology and subject matter of political science. (Restricted to majors and minors entering June 1967, and after.)

PolS 323 Political Philosophy **3 cr.**

The evolution of the Western political tradition of Constitutionalism from Plato and Aristotle to Locke and Montesquieu. The religious (Judeo-Christian) and rational (Graeco-Roman) foundations. Medieval theories of authority and representation in church and state. Early modern theories of the state and sovereignty (Bodin and Hobbes). Emphasis on analysis of writings of leading theorists. Concepts of law, natural rights, liberty and equality, and justice are treated in detail.

PolS 350 Public Administration **3 cr.**

A survey of the major areas of public administration, with emphasis on theories of organization and structural organization and dysfunctions of the bureaucratic system, personnel processes, executive functions, financial administration, the politics of administration, public relations, and problems of democratic control of bureaucracy.

PolS 351 Legislative Process **3 cr.**

Organization and procedure of the United States Congress, with special reference to the theory and practice of representative government, lobbying, and bicameralism.

PolS 352 Public Opinion 3 cr.
A study of the nature of public opinion within the political system. Attention is given to the formation of public opinion and its expression, propaganda, mass media, and interest groups.

PolS 353 American Political Parties 3 cr.
The role of people, parties and pressure groups in the politics of American democracy. Attention will be devoted to: campaign activities of candidates; party support for the candidates; voting behavior; sectional and historic roots of national politics; the institutional politics of Congress and the Presidency; the competition for power among business, labor, agriculture, and the other major organized interests.

PolS 354 Metropolitan Problems 3 cr.
Analyzes the multiplicity of problems facing our metropolitan areas. Contemporary developments such as urban renewal, the shrinking tax base, federal aid to cities, subsidized mass transit, municipal authorities, and political consolidation are examined. Pennsylvania municipalities are contrasted with those of other states.

PolS 355 Comparative Government 3 cr.
Analyzes the major foreign political systems, with emphasis upon contemporary Europe including the Soviet Union. Authoritarian and democratic systems are compared, with the emphasis upon institutions and processes.

PolS 356 State and Local Government 3 cr.
Institutions and processes of state and local governments, with special attention to Pennsylvania. Emphasis is placed on the nature of federalism, state constitutions, parties and interest groups, the legislature, office of governor, the judiciary, and role of state and local government in an urban society.

PolS 357 International Relations 3 cr.
Consideration is given to the fundamentals of the state system, sovereignty and nationalism; the elements of national power; the diplomatic, legal, economic, organizational and military relations of states; procedures for the settlement of disputes; power-security problems and patterns of power to cope with the problems. The course attempts to provide a conceptual framework on the basis of which international events can be sorted out and made meaningful.

PolS 358 Contemporary Political Problems 3 cr.
This course emphasizes the dynamics of government as they are evidenced in public opinion, pressure groups, political parties and our governmental institutions. Attention is also directed toward the political-economic nexus within American society.

PolS 359 American Constitutional Law **3 cr.**
A study of the development of constitutional law through leading Supreme Court decisions. Topics treated include the scope of federal powers, civil liberties and civil rights, the nature of judicial review, federal-state relations. Attention is given to the continuing controversy over the role of the Supreme Court in American society.

PolS 360 American Foreign Policy **3 cr.**
An analysis of the formulation and execution of American foreign policy. An examination of the roles of the formal governmental institutions, mass media, interest groups, and public opinion in the policy-making process. Special emphasis to be given to contemporary foreign policy problems.

PolS 361 The Presidency **3 cr.**
An examination of the Office of President with attention to constitutional foundations, evolution, structure, powers, and functions. Evaluation of the changing nature of the office within the American political system. Some comparisons are made between presidential and parliamentary systems and between the offices of President and Governor.

PolS 362 Federal Administrative Policy **3 cr.**
An intensive study of the role of federal agencies and their administrators in determining and developing public policy. Public administration in practice is emphasized by utilizing case studies.

PolS 375-376 Readings in Politics **3 cr.**
Readings and brief written assignments on a specific topic determined by the instructor in charge.

PolS 398-399 News Interpretation **1 cr.**
The course is designed to provide students with techniques for intelligent reading of the daily newspaper and weekly news magazines and to give some understanding of current affairs at the state, national and international level.

PolS 424 Modern Political Thought **3 cr.**
The development of political thought since the mid-16th century (Rousseau). Classic Liberalism of the Philosophic Radicals. Conservative thought since Burke. The nature and origin of modern irrational ideologies such as fascism and national socialism. Socialist thought (Marxist and non-Marxist). Contemporary collectivist liberalism.

INTERNATIONAL STUDIES

ROBERT MORRIS, Director

PolS 378 International Organizations 3 cr.
An analysis of the purposes, functions, structure, and history of international political organizations in the twentieth century such as the United Nations, its predecessor, the League of Nations, the Organization of American States, and other regional institutions.

PolS 379 Developing Nations 3 cr.
An examination of the major political problems encountered by the developing nations. Topics for study and discussion include: Political characteristics of the emerging nations; the impact of economics and social change upon political structure; evolving patterns of political development; and techniques of nation-building.

PolS 380 Soviet Politics 3 cr.
Essential features of the Communist party and government of the U. S. S. R., including geographical and historical background and ideological and theoretical foundations.

PolS 381-382-383-384-385-386 Political Systems 3 cr.
An intensive, comparative study of the government and politics of a selected region.

PolS 381 Latin America

PolS 382 Africa

PolS 383 Asia

PolS 384 Middle East

PolS 385 Central and Eastern Europe

PolS 386 Atlantic Community

PSYCHOLOGY DEPARTMENT

STANLEY W. LORE, Chairman of Department

BRUCE D. CARTWRIGHT
WILLIAM E. CUTLER
KENNETH F. EDGAR
TERENCE A. GERACE
D. ROBERT JACOBS
BLANCHE W. McCLUER
JOHN W. REID

Affiliate Members:
HERBERT I. LEVIT
NOEL A. PLUMMER

Psychology Courses

Psy 201 General Psychology (General Education Course for all Education students and Psychology Majors) 3 cr.

This is an introduction to the scientific study of the behavior of living organisms. The student will acquire a psychological vocabulary, know the major psychological concepts and principles will understand the application of the scientific method to psychology, be able to distinguish between empirical psychological facts and theories, develop a critical attitude toward popular generalizations and misconceptions, and, to a degree, understand others and himself better.

Psy 202 Advanced General Psychology 3 cr.

Prerequisite: Psy 201

A course designed to extend one's knowledge of general psychology as a science. An extension of general psychology for science and liberal arts students who desire acquaintance with topics in perception, the senses, and human learning. Weekly demonstrations and laboratory exercises. Laboratory periods by arrangements.

Psy 221 Historical Trends in Psychology 3 cr.

Prerequisite: Psy 201

A comprehensive overview of the historical antecedents of contemporary systems of psychology. Philosophical and scientific thought will be considered as it is related to the establishment and continuing development of psychology.

Psy 310 Behavioral Statistics 3 cr.

An introduction to both Descriptive and Interpretative Statistics as applied to behavioral science data. A non-mathematical course, with emphasis on the appropriate application of statistical tools.

Psy 311 Experimental Psychology 3 cr.

Prerequisites: Psy 201, Math 362 (or Psy 310)

A laboratory course on designing, conducting and evaluating experiments. Students carry out both original and classical experiments in the major areas of psychology. Outstanding studies in each area are surveyed. Two lecture periods plus one double-period laboratory session.

Psy 352 Mental Hygiene **3 cr.**

Prerequisite: Psy 201.

A course designed for aiding the development of strong, hygienic personalities; mental hygiene as related to the child, adolescent, and teacher in the home, classroom, and social situation; maladjustments and mental diseases with emphasis on prevention.

Psy 353 Child Psychology **3 cr.**

Prerequisite: Psy 201.

This course aims to study the developmental changes in intellectual, emotional, motor, and social behavior from early infancy to adolescence. Outstanding experimental, clinical and theoretical contributions that show the important practical relationships between self-understanding, understanding of others, and the process of helping children to discover themselves will be given special attention.

Psy 354 Developmental Psychology **3 cr.**

Prerequisite: Psy 201.

A comprehensive study of the principles of psychological development in the individual from conception to old age. Emphasis is on research methodology and experimental evidence pertaining to developmental principles.

Psy 355 Adolescent Psychology **3 cr.**

Prerequisite: Psy 201.

This course is a study of the adolescent, his growth and development, behavior, personality, and problems. All areas in his experience will be considered, the physical, mental, emotional, social.

Psy 362 Physiological Psychology **3 cr.**

Prerequisite: Psy 201.

This course will be an intensive study of the physiological bases of behavior, with respect to the receptor, adjustive and effector systems. Selected principles of psychophysics and neuroanatomy are emphasized. (Departmental consent required)

Psy 363 Perception **3 cr.**

Prerequisite: Psy 201.

A study of perceptive processes, their acquisition, and their effects upon the individual. Sensory mechanisms and their thresholds as well as responses to complex stimuli are also included.

Psy 371 Personality **3 cr.**

Prerequisite: Psy 201.

The leading experimental and clinical findings on personality and motivation and the major theories of personality, including Freudian theories. (Departmental consent required)

Psy 372 Introduction to Psychological Measurement **3 cr.**
Prerequisite: Psy 201.
A survey of psychological measurement techniques, with emphasis on the theoretical assumptions underlying these techniques and discussion of the interpretation and limitations of the measuring instruments. The course includes a consideration of individual and group tests, objective and projective techniques, and self-rating scales. (Departmental consent required)

Psy 391 Psychology of Learning **3 cr.**
Prerequisite: Psy 201.
The description and analysis of theories of the learning processes. Discussion of experimental findings relating to the acquisition, maintenance, and control of behavioral changes in terms of these theories.

Psy 451 Psychological Practicum **3-9 cr.**
Prerequisite: Department approval.
Under the supervision of the Psychology Department selected students receive experience in the application of psychological technique.

Psy 452 Social Psychology **3 cr.**
Prerequisite: Psy 201.
A study of the interaction of people, either in pairs or in groups. Examination of the effects of their respective personalities, motives, attitudes and cultural backgrounds upon each other. Also a study of leadership, role playing, group conformity and group effectiveness.

Psy 461 Abnormal Psychology **3 cr.**
Prerequisite: Psy 201.
The systematic study of the full range of psychological functioning from the basic and accepted normal to the most extreme aberrations. Etiology, dynamics, symptomatology, treatment, and prognosis of the psychoneuroses, psychoses, psychomatic disorders, character disorders, and disorders of intelligence constitute the major emphases of the course.

Psy 481 Industrial Psychology **3 cr.**
Prerequisite: Psy 201.
A systematic consideration of the practical applications of psychology to business and industry. Attention is given to the effects of industrial organization upon individual motivation. Problems of communications, personnel, and the development of social relationships within the industrial setting are studied.

Psy 491 Senior Seminar in Psychology **3 cr.**
Open only to students with a specialization in psychology and senior standing. Discussion of the basic concepts in psychology, their evolution, and their current status. Exploration of current research and trends in the various areas of psychology. (Departmental consent required)

SCIENCE DIVISION

DWIGHT E. SOLLBERGER, Science Coordinator

GENERAL EDUCATION COURSES

Biol 103 General Biology I **4 cr.**

This course deals with the principles of biology. Topics include cellular structure and physiology, growth and repair, reproduction and development, control sources of food energy, inheritance, and man's interrelationship with his biological environment. The classification of plants and animals is reviewed briefly. Three hours lecture and two hours laboratory.

Biol 104 General Biology II **4 cr.**

A continuation of General Biology I. Three hours lecture and two hours laboratory.

Sci 105 Physical Science I **4 cr.**

A study of the physical world, focusing on the fundamental concepts of matter and energy. Emphasis is placed on what science is, how scientific knowledge is acquired, and the emergence of the more fundamental physical laws. Topics include those often associated with astronomy, chemistry, geology and physics. Three hours lecture and two hours laboratory.

Sci 106 Physical Science II **4 cr.**

A continuation of Physical Science I. Three hours lecture and two hours laboratory.

PROFESSIONAL EDUCATION REQUIREMENT

Ed 451 Teaching Science in the Secondary School **3 cr.**

Prerequisites: 12 hours of work in major field. Two hours lecture and three hours laboratory work per week.

This course is designed to make the prospective science teacher aware of some of the important problems in science education. Emphasis is laid on lesson planning, construction of unit outlines, demonstrations, and open-ended laboratory experiences. Each student is required to investigate the latest curricular emphasis in his field.

SPECIAL SCIENCE COURSES

Sci 311 Elements of Earth Science **3 cr.**

This course is designed to make elementary teachers more aware of the science in their environment. While the biological environment is briefly reviewed, greater stress is placed upon the areas of geology, astronomy and meteorology. Field study and lectures strive to include both scientific principles and practical classroom activities that the teacher may use in the elementary classroom.

El 312 Teaching of Elementary Science **3 cr.**

The fundamental areas of physics and chemistry are covered in this course. Student participation is fundamental to their understanding of the basic principles that can be transferred to the elementary classroom, and to their familiarization with scientific equipment. The latter part of the course is devoted to a survey of the biological environment and continues the work begun in Elementary Science.

SOCIAL SCIENCE DIVISION

RAYMOND L. LEE, Social Science Coordinator

GENERAL EDUCATION COURSES

(Required of all students)

Hist 102 History of Civilization II **3 cr.**

This course deals with man's development from 1600 to the present. Among the topics discussed are: The Commercial Revolution; the Age of Reason; the Age of Revolution—political, economic, and social the rise of constitutional governments; nationalism and the clash of cultures incident to the growth of empire. Considerable attention is given to democracy, capitalism, communism, fascism, and socialism as the major ideologies of the nineteenth and twentieth centuries. The course concludes with an examination of the various formulas for world order proposed or attempted since 1900.

Hist 104 History of the United States and Pennsylvania II **3 cr.**

A course in the history of the United States and Pennsylvania from 1865 to the present in which the industrialization of America, urbanization, the rise of organized labor, and the development of a distinctly American culture are stressed. Attention is also given to the political, economic, and social reform movements of this period in our history as well as to the increasing role of the United States in world affairs.

PolS 111 American Citizenship **3 cr.**

This course is largely concerned with our Federal and State governments. Emphasis is placed upon the constitutional basis of government, organization and structure of government, division of governmental powers, Federal and State relations, public finance, organization and role of political parties, and the place of the citizen in government. In a study of the functions and services of government, attention is given such problems as foreign policy and world relations, economic and social security, and the promotion of the general welfare.

Anth 110 Introduction to Anthropology **3 cr.**

Following a brief survey of man's place in nature, the course focuses on the concept of culture and on the divergent

answers that cultures give to the basic questions of man's existence.

SOCIAL SCIENCE HONORS PROGRAM

SS 491 Social Science Honors **3 cr.**

Prerequisites include a B average in Social Science courses, an average which must be maintained during the honors program.

Admission to the Social Science Honors course is by invitation only. Students will do independent research over two semesters under the direction of a department member.

SS 492 Social Science High Honors **3 cr.**

This course is an extension of SS 491. Admission by invitation.

PROFESSIONAL EDUCATION REQUIREMENT

Ed 451 Teaching Social Studies in the Secondary Schools **3 cr.**

This course provides an opportunity for the prospective teacher to develop understandings and competencies for teaching social studies. Emphases in the course include: values and goals in social studies, the teaching process, materials and learning activities, evaluation of learning, and planning for classroom teaching. This course is a prerequisite to student teaching in the social studies.

SOCIOLOGY-ANTHROPOLOGY DEPARTMENT

RALPH R. IRELAND, Chairman

HERBERT L. BENTON
VIRGINIA G. GERALD
RUDOLF R. KRAUS
ESKO E. NEWHILL
DOWNEY D. RAIBOURN
WALTER T. SHEA

Soc 151 Principles of Sociology **3 cr.**

Sociology is the science of the structure and functioning of human groups. Taking culture concepts and social institutions as its basic materials, it explores the content, methodology, and interrelationships of those studies seeking to record and explain man's social behavior in the modern world. Problems of social change, and the attendant efforts to direct and control such change, are integral parts of the course.

Soc 331 Contemporary Social Problems **3 cr.**

Prerequisite: Principles of Sociology.

A course which explores pressing social issues and the solutions offered for their alleviation. Within its scope fall race and minority discrimination, juvenile delinquency, crime, family disintegration, personal maladjustment, population shifts, the role of culture, the nature of social change, and the possibility of social planning. Problems are defined and solutions are explored in the light of historical, political, economic, social, and anthropological data.

Soc 332 Racial and Cultural Minorities **3 cr.**

Prerequisite: Principles of Sociology.

A study of national, racial and religious minorities and divergent heritages in our national life.

Soc 333 Juvenile Delinquency **3 cr.**

Prerequisite: Principles of Sociology.

Principal topics are the cause of delinquency, its forms, consequences, and the methods that may best be used in its prevention.

Soc 334 Population Problems **3 cr.**

Prerequisite: Principles of Sociology.

The focus is upon population growth and distribution. The present "population explosion" will be a topic of central interest.

Soc 335 Social Stratification **3 cr.**

Prerequisite: Principles of Sociology.

A study of social status patterns and social mobility. Determinants of social class divisions and the consequences of class distinction for individuals and society will be discussed.

Soc 336 Sociology of the Family **3 cr.**

Prerequisite: Principles of Sociology.

The relationships between types of family interaction and

extrafamilial problems are emphasized, as well as the impact of social change on the structure and functions of the family.

Soc 337 World Cultures **3 cr.**

Students are provided with a minimal orientation to the study of the cultural diversity of human societies. There will be an emphasis on the determinants of cultural variability and the problem of ethnocentrism resulting from this diversity.

Soc 338 Introduction to Social Work **3 cr.**

Prerequisite: Soc 251, Principles of Sociology

The principles of social work; their application to problems of family and child welfare; casework and group techniques.

Soc 339 American Communities **3 cr.**

Prerequisite: Soc 251, Principles of Sociology

An analysis of the social structure of communities at the local level in relation to the national community structure. Examination of current problems and future trends.

Anth 110 Introduction to Anthropology **3 cr.**

Following a brief survey of man's place in nature, the course focuses on the concept of culture and on the divergent answers that cultures give to the basic questions of man's existence.

Anth 211 Cultural Anthropology **3 cr.**

Prerequisite: Introduction to Anthropology.

A survey of problems and theories in the science of culture. Each student makes a study of a particular major anthropologist or theoretical approach.

Anth 312 World Ethnography **3 cr.**

Prerequisite: Introduction to Anthropology.

Study in depth of specific non-literature cultures to explore questions of cultural integration.

Anth 313 Pre History **3 cr.**

Prerequisite: Introduction to Anthropology.

Survey of the Old and New World prehistory with emphasis on archaeological method and theory, and on cultural development during the Mesolithic, Neolithic and early Iron Age periods. Experience in analysis of archaeological data will be provided.

Anth 314 Ethnology of North American Indians

Prerequisite: Introduction to Anthropology.

A survey of the culture history and culture area characteristics of the Indians of North America. Detailed study of representative groups will be related to historical, functional, and ecological concepts.

SPECIAL EDUCATION AND CLINICAL SERVICES

MORTON MORRIS, Chairman of Department

NELSON H. BORMANN
MAUDE O. BRUNGARD
EUGENE A. FELIX
MARSHALL G. FLAMM
MARION M. GEISEL
ELSIE L. REID
EUGENE F. SCANLON
DOROTHY M. SNYDER

This department offers three options for student majors. Each option follows a prescribed sequence of courses. Students may elect to major in any one of the following fields of exceptionality:

A. EDUCATION FOR THE MENTALLY RETARDED

B. TEACHING OF THE SPEECH AND HEARING HANDICAPPED

C. REHABILITATION EDUCATION

Students in other departments not intending to major in any of the options who wish to improve their understanding of exceptionality, may, with permission of the instructor, elect certain courses.

Introductory Courses

(These courses are open to all students)

SpE 220 Introduction to Exceptional Children **3 cr.**
This introductory course gives students an opportunity to survey the characteristics, needs, problems, and behavior patterns of those children who deviate sufficiently from the "normal" to be considered exceptional. Consideration will be given to those who fall intellectually both above and below the average; to those who are handicapped visually, acoustically, orthopedically, medically, or in respect to speech patterns. Behavior disorders resulting from brain impairment will also be considered.

SpE 215 Child Development **3 cr.**
Childhood foundations of human growth and development are considered in this course. Research from various disciplines are studied in terms of understanding physical, mental, social and emotional factors and how these interrelate throughout childhood development. Implications of growth and development are considered in aspects of adjustment to home, school, and community life.

SpH 254 Speech Development and Improvement **3 cr.**
This course involves a study of those aspects of speech and hearing problems pertaining to the classroom situation. Types of speech and hearing disorders, conducting speech improvement lessons, classroom aids for the speech and hearing defec-

tive child, and school and community resources for these children are emphasized. Open to both education and speech and hearing majors.

A. EDUCATION FOR THE MENTALLY RETARDED

Students may become certified as teachers of the mentally retarded by pursuing a coordinated sequence of prescribed courses and by fulfilling requirements for student teaching with the mentally retarded. The program also provides a foundation for pursuing additional work at the graduate level. Further specialized training in mental retardation offers opportunities for qualified persons in administration, supervision, vocational rehabilitation and related fields.

I. Basic Courses in Mental Retardation

SpE 320 Psychology of Mentally Retarded Children 3 cr.
Prerequisite: SpE 220 Introduction to Exceptional Children.

This course will point up the importance of viewing retarded children and youth as living, adjusting individuals who respond to many kinds of personal and social situations and who are capable of far more than usually imagined. The importance is stressed of the ways in which the retarded develop, learn, and adapt to various home, school, community, or sheltered settings.

Art 330 Arts and Crafts for the Mentally Retarded 3 cr.
The materials and processes of arts and crafts are studied for opportunities they offer in the training, therapy and education of students who are mentally retarded, crippled, or need special help for any reason. (Offered by Art Dept.)

SpE 301 Reading and Other Language Arts for the Mentally Retarded 3 cr.
This course deals with the preparation and execution of teaching units in reading, vocabulary development, spelling, handwriting, and/or written communication. The emphasis will be on what retarded children can reasonably be expected to do at elementary and secondary levels. Consideration will be given to objectives, procedures and experiences designed to meet the unique needs of the mentally retarded.

SpE 411 Health and Physical Education for Exceptional Children 2 cr.
Prerequisite: SpE 220 Introduction to Exceptional Children.

This course will provide an opportunity for the prospective teacher of the mentally retarded to gain a thorough understanding of a program of health, physical education and recreation as it applies to individuals with mental and physi-

cal handicaps. Special attention will be given to the needs of children with physical handicaps or developmental problems which may accompany mental retardation.

SpE 431 Curriculum and Methods for the Mentally Retarded (Open only to qualified seniors) 3 cr.

This course will consider the basic content and method for teaching the mentally retarded. Emphasis will be placed upon organization of curriculum in the fundamentals and in social and pro-vocational skills for daily living. Resource materials used for instruction at elementary and secondary levels will be explored.

SpRe 401 Occupational Information 3 cr.

Students are oriented to occupational fields in order to gain understanding of business and industrial job requirements pertinent to vocational adjustment of the handicapped. Emphasis is given to utilizing compensatory abilities in selective job placement.

Basic Courses in Reading and Arithmetic Methods:

El 313 Teaching of Math in the Elementary School 3 cr.

(See course description under ELEMENTARY EDUCATION DEPARTMENT)

Elem 222 Teaching of Reading 3 cr.

(See course description under ELEMENTARY EDUCATION DEPARTMENT)

Electives and Courses for Teachers Completing Special Education Requirements:

Mus Ed 310 Music for the Mentally Retarded 2 cr.

Prerequisite: El 211 Music for Elementary Grades.

The concept of the function of music in the light of the mentally retarded child will be developed from the standpoint of functional use rather than critical evaluation of skill development. Materials will be surveyed, evaluated, and selected for use as well as specific techniques of presentation.

SpE 420 Teaching Mentally Retarded Children 3 cr.

Prerequisite: SpE 220 Introduction to Exceptional Children.

This course will consider the basic design, philosophy, and procedure developed for teaching mentally retarded children. Emphasis will be placed upon how to organize for teaching the mentally retarded child, how to guide the activities of the mentally retarded child, and how to teach the "fundamental processes" to the mentally retarded child.

SpE 421 Student Teaching of the Mentally Retarded 3 cr.

Students will be required both to observe and to partici-

pate in the teaching of mentally handicapped students. (Ordinarily this course will be offered in conjunction with SpE 451 for Summer School Students.)

SpE 451 Special Class Methods for the Mentally Retarded **3 cr.**

Prerequisite: SpE 220 Introduction to Exceptional Children.

The chief emphasis of this course will be upon practical and workable methods and materials which can be used effectively with slow-learning children. It is intended as a supplement to SpE 420 as well as to serve as a course in specific techniques which the classroom teacher will find to be valuable in actual classroom teaching of the mentally retarded.

SpE 216 Mental Health in the Schools **3 cr.**

This course aims to acquaint the student with the advantages and ideals of education for mental health and human relations. The concept of mental health is developed in terms of optimal human functioning and concentrates on positive aspects and modifications of behavior rather than on malfunctioning and clinical treatment of mental and emotional disorders. The practical application of mental health principles in the school setting is emphasized.

B. TEACHING OF THE SPEECH AND HEARING HANDICAPPED

The curriculum in Teaching of the Speech and Hearing Handicapped prepares students to meet Pennsylvania State Certification requirements to act as speech and hearing therapists or speech correctionists in the public schools. It is also designed to encourage and promote students' participation in graduate programs of speech education leading to careers as speech pathologists or audiologists.

Students are urged to follow the eight semester sequence of courses in orderly progression. Required courses provide a background in the philosophy of exceptional children with special emphasis on speech and hearing handicapped, and inform students concerning the theoretical and practical aspects of speech correction, audiology and language disorders. The Speech and Hearing Clinic serves as a laboratory for required clinical practice. Student participation in a public school speech and hearing program is also a requirement.

Students not intending to obtain certification in this field but who are interested in assisting children to develop better communication skills may, with permission of the instructor, elect certain courses in this curriculum. Elementary Education students and students in Education for the Mentally Retarded are urged to elect Speech Development and Improvement. Persons in Public School Nursing are encouraged to enroll in Introduction to Audiology.

Required Courses:

Group I—Basic Courses in Speech Correction and Audiology

SpH 111 Introduction to Speech and Hearing Problems 3 cr.
Prerequisite for all other required courses in the Department except Phonetics.

Basic orientation to the field of speech and hearing therapy. A survey of the major types of speech disorders, their prevalence, and causes. The genetic development of speech sounds and a study of when speech can be considered defective. Observation of children with normal and defective speech.

SpH 122 Phonetics 3 cr.
The study of the sounds of the English language from a physical and acoustical point of view. Mastery of the International Phonetic Alphabet for transcription and translation to speech sounds. Application of phonetics to clinical speech problems. The study of research techniques through classroom experimentation, reading and movies.

SpH 222 Introduction to Audiology 3 cr.
The auditory function, anatomy of the auditory mechanism, the psychophysics of sounds, types and causes of hearing loss, measurement of hearing by pure tones and speech audiometry, and educational considerations for the hearing handicapped child.

SpH 232 Speech Pathology I 3 cr.
Background study of the symptoms, causes, and treatment of speech abnormalities. The functional disorders of articulation, voice, and rhythm will be emphasized.

SpH 310 Speech and Hearing Clinic I 2 cr.
Elementary practicum in clinical methods of diagnosis and therapy. Experience in working with individuals or groups of persons who exhibit speech problems. Practice in lesson planning and writing of case histories and reports. Supervision in the use of clinical instruments.

SpH 311 Speech Reading and Auditory Training 3 cr.
Prerequisite: SpH 222 Introduction to Audiology.

The basic principles of understanding language by observing the speaker's lips, and facial expressions, and developing residual hearing to the maximum. Educational and rehabilitative considerations for hard-of-hearing children and adults. Observation of hard-of-hearing.

SpH 320 Speech and Hearing Clinic II 2 cr.
Advanced practicum with children or adults presenting speech and hearing problems. Students are expected to assume greater responsibility and self-direction in the handling of clients, than in Clinic I. Lesson planning, writing of reports and case histories of a detailed nature.

SpH 331 Speech Pathology II 3 cr.
A study of the etiologies, diagnosis, and management of speech defects associated with structural anomalies and physiological dysfunction. Voice disorders, cleft palate, cerebral palsy and post-laryngectomy will be emphasized.

Group II—Courses in Psychology of Exceptional Children with Special Emphasis on Speech and Hearing Handicapped.

SpE 220 Introduction to Exceptional Child 3 cr.
(See Introductory Courses)

SpH 321 Psychology of Speech and Hearing Handicapped Children 3 cr.
Study of causative influences and effects of speech and hearing handicaps on personality development. Normal evolvement of social, motor, and speech skills will be emphasized and their inter-relationship in making satisfactory personal adjustments. Attention will be given to individuals at all age levels.

Group III—Professional Education Courses.

SpH 312 Organization and Administration of Speech and Hearing Programs 3 cr.
Consideration of varied procedures in establishing and maintaining successful speech and hearing programs. The philosophy and methodology for work with speech and hearing handicapped children in the public schools. Techniques of screening and other case finding methods, scheduling principles, means of limiting case load, record keeping, teacher and parental counseling and coordination with other school activities. Public school programs are contrasted with clinical programs and advantages and needs for both are emphasized.

Elem 222 Teaching of Reading 3 cr.
(See course description under ELEMENTARY EDUCATION DEPARTMENT)

Group IV—Electives

SpH 251 Anatomy and Physiology of the Speech and Hearing Mechanism 3 cr.
Consideration of the genetic development, structure and functions of the mechanisms for speech and hearing. A study of the anatomical systems involved in respiration, phonation, and articulation, and the relationships between the systems in the production of speech.

SpH 254 Speech Development and Improvement 3 cr.
A study of those aspects of speech and hearing problems pertaining to the classroom situation. Types of speech and hearing disorders, conducting speech improvement lessons, classroom aids for the speech and hearing defective child, and school and community resources for these children. Open to both education and speech and hearing majors.

SpH 354 Audiometry for Public School Nurses **3 cr.**

This course is designed as an intensive review of the physiology of hearing; the etiologies and classifications of hearing loss; the use of audiometric testing equipment in the schools; interpretation of the audiogram; and the role of the nurse in public health hearing programs.

SpH 362 Language Development and Language Disorders in Children **3 cr.**

Prerequisite: SpH 111 Introduction to Speech and Hearing Problems.

Includes the dimensions, sequences, and purposes of symbolic functioning in the development of language concepts. Expected levels of symbolic achievement at various ages. Differential diagnosis of language disorders in the deaf, mentally retarded, emotionally disturbed and the aphasic and principles of education.

SpH 454 Articulation Disorders **3 cr.**

Detailed consideration of the speech-sound production disorders in children and adults. Etiology of articulation disorders, methods of testing articulation and techniques of therapy for persons exhibiting articulation disorders. Current thinking and research in the field is emphasized. Open only to majors.

SpH 474 Faculty-Student Research Projects **1-2 cr.**

Investigation of worth-while problems within the limits of the resources of the Speech and Hearing Clinic. Collection of data, data analysis, and the writing of an article to be submitted for publication. Open only to seniors, and with the permission of the faculty. Should be taken for two semesters, one credit each.

Electives—Related Areas

SpE 215 Child Development **3 cr.**

(See Introductory Courses)

El 313 Teaching of Math in Elementary School **3 cr.**

(See Elementary Education Department Required Courses.)

Psy 352 Mental Hygiene **3 cr.**

(See Psychology courses Electives.)

C. REHABILITATION EDUCATION

The following curriculum in Rehabilitation Education is offered to student majors seeking career opportunities with health and welfare agencies and institutions. Although originally identified with the needs of the war disabled, the benefits of Rehabilitation have been extended to the larger requirements of civilian handicapped. Demands for trained personnel

in Rehabilitation have grown accordingly. The program in Rehabilitation Education provides basic training and a foundation for pursuing additional work at the graduate level.

SpE 220 Introduction to Exceptional Children **3 cr.**
This introductory course gives students an opportunity to survey the characteristics, needs, problems, and behavior patterns of those children who deviate sufficiently from the "normal" to be considered exceptional. Consideration is given to those who fall intellectually both above and below the average; to those who are handicapped visually, acoustically, orthopedically, medically, or in respect to speech patterns. Behavior disorders resulting from brain impairment are also considered.

SpE 320 Psychology of the Mentally Retarded **3 cr.**
This course points up the importance of viewing retarded children and youth as living, adjusting individuals who respond to many kinds of personal and social situations and who are capable of far more than usually imagined. The importance is stressed of the ways in which the retarded develop, learn, and adapt to various home, school, community, or sheltered settings.

SpRe 301 Principles and Methods of Rehabilitation **3 cr.**
This course emphasizes basic principles and methods used in rehabilitation of individuals with various types of disabilities. Consideration is given to coordination of medical, psychological, social and educational resources in the rehabilitation plan, and students become familiar with State and Federal rehabilitation programs.

SpRe 401 Occupational Information **3 cr.**
Students are oriented to occupational fields in order to gain understanding of business and industrial job requirements pertinent to vocational adjustment of the handicapped. Emphasis is given to utilizing compensatory abilities in selective job placement.

SpRe 402 Clinical Information in Rehabilitation **2 cr.**
Students are introduced to medical and psychosocial information, procedures, and terminology used in rehabilitation. Clinical diagnosis, prognosis, and methods of treatment are surveyed, as these procedures relate to rehabilitation of disabled persons.

SpRe 321 Rehabilitation Practicum I **6 cr.**
Students are introduced to directed field experiences and activities in several selected rehabilitation agencies and organizations.

SpRe 421 Rehabilitation Practicum II **6 cr.**
Students work under the direction of qualified rehabilitation personnel. Observation and participation opportunities are provided in the direct management of specific types of disabled individuals.

Related areas (Required)

Soc 251 Principles of Sociology **3 cr.**

Soc 233 Juvenile Delinquency **3 cr.**

Soc 338 Intro to Social Work **3 cr.**
(See SOCIOLOGY DEPARTMENT for course descriptions)

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